

Animal **LIFE**

VETERINARY MEDICAL TEACHING HOSPITAL



Inside

Crime Fighter
Fights for
His Life

Horse's Tale
Begins with a
Head Injury

Pre-Historic
Patient Visits
the VMTH

Eagle at Sunset
Zoo is Eyeing
the Future

AnimalLIFE

The two words "animal" and "life" share the "L" because—just like our pets—they are a seamless part of our lives.



Patrice Scott, "AnimalLIFE" editor, with a Dogo Argentino puppy.

The purpose of an editor's column is to lay the foundation for the articles in a publication. Typically, I have followed that format but will break from tradition and write about what's in the hospital but does not exist on paper.

People come to the hospital because it is often the last hope for a cherished pet or companion animal. Many clients leave jubilant, others leave with only memories. Here, one quickly learns about the human-animal bond and the pain of pet loss. This is something I've experienced firsthand. But what has surprised me was learning all the things animals are not. They aren't always well, they aren't always able to be cured and they aren't with us long enough.

I have witnessed overworked clinicians remain with grieving pet owners, gently petting the animal as family members share stories. I have watched as veterinarians who are off clinics comfort families, answer medical questions and offer the most important kind of support: the genuine kind that is gladly there if needed.

We are blessed to have these compassionate professionals mentoring tomorrow's veterinarians. To watch senior veterinary students treat patients with dignity and respect, to see students sit in cages with patients while reading textbooks, to listen as students call worried owners and provide an update that means the world to them is truly something to behold.

I guess what I'm trying to quantify is the heart of the hospital. Believe me, it's there, it's real, and it doesn't miss a beat thanks to the extraordinary faculty, students and staff.

Enjoy your animals. Enjoy your gifts and take to heart the underlying message in this magazine, Seize the Day. Please call me if you'd like to share your story. 🐾



VMTH client Audrey Yadrich went home without her beloved dog, Tracy. However, she left comforted by the compassionate care Tracy received from senior student Annie Noeller.

All the best,

Patrice

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Riko and his handler, Sgt. Bill Gollner, enjoy every day together. Cover photo by Dave Adams.

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Photo by Patrice Scott

Dr. Roger Fingland visits with Daniel Harkin in the lobby of the teaching hospital during the university's Open House on April 8.

As I was visiting with youngsters at the teaching hospital during the university's Open House in April, it struck me that "AnimalLIFE" provides an excellent opportunity for us to positively influence the next generation. There are so many important life lessons that can be taught by the example we set as we interact with animals. In this issue of "AnimalLIFE," we present more heartwarming stories about people and animals. As you read these pages, please consider sharing these stories with youngsters. Many important life lessons are here if we take advantage of them.

We are excited about the progress of the ICU/Critical Care renovation in the VMTH and our satellite teaching hospital, Midwest Veterinary Specialty Hospital, in Omaha, Neb. We will unveil these completed projects in the next edition of "AnimalLIFE"—you won't want to miss it!

Meanwhile, we continue to be blessed with wonderful opportunities to help people and the animals that mean so much to them and to the public. It is truly an honor to work with the students, staff and faculty who make our hospital an exceptional place for health and healing. Many of you have responded to the stories we have shared in "AnimalLIFE" with letters, emails and donations. We sincerely appreciate your support and your desire to help us help animals. Thank you for supporting our hospital, and thank you for caring about animals. 🐾

Warm Regards,

Roger B. Fingland, DVM, MS, MBA
Diplomate, ACVS
Professor and Director
Veterinary Medical Teaching Hospital



Photo by Brennan Engle

Left: Dr. Shelie Laffin performs an ultrasound on a bull belonging to VMTH client Twig Marston.

Center: The Laffin family, husband R.D., and twin sons, Agustus and Colt.

Below: Roscoe, a Red Angus bull, receives an examination by Dr. Laffin while she's expecting the twins.



Photo by Patrice Scott

Dr. Shelie Laffin—improving quality

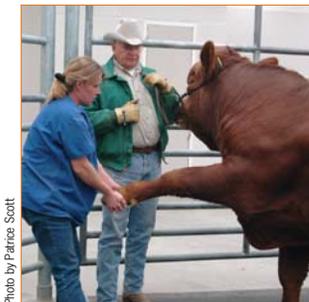
Whether it's dine in, carry out or sizzling on your grill, Dr. Shelie Laffin may have had something to do with the beef on your dinner plate.

Dr. Laffin, assistant professor of agricultural practices at the Veterinary Medical Teaching Hospital (VMTH), is a cutting-edge clinician who uses technology to determine which production animals are best suited for reproduction. As a certified ultrasound technician, her techniques improve herd quality, industry economics and ultimately, your dinner. "We ultrasound animals to obtain information about their bodies and use that information when we are selecting sires," Dr. Laffin says.

Marbling is a key factor in determining meat quality. Dr. Laffin explains that marbling is actually streaks of intramuscular fat that give meat flavor. "If a cow herd is somewhat low in marbling, I would select a bull with higher intramuscular fat to introduce into the herd," she says. "To a certain degree, the higher the marbling content, the better. Extramuscular fat is usually what is trimmed away by the butcher. Producers lose money based on the thickness of the extramuscular fat and are paid more for the amount of intramuscular fat."

Twig Marston, VMTH client and beef producer, has bulls ultrasounded by Dr. Laffin. "She is absolutely the best. She's thorough, she's honest, and she has great doctor-patient rapport." Twig and Dr. Laffin are committed to improving herd genetics and beef quality.

Photo by Patrice Scott



The result of these high tech practices eventually comes neatly wrapped in cellophane at the grocery store, and Dr. Laffin offers guidelines in selecting meat. "If the intramuscular fat is clumpy, it's a lower marbling animal," she says. "If the fat is more evenly dispersed, it's higher quality." The color of the meat is also an indicator of quality. "The bright red color indicates oxygen exposure. With exposure to oxygen, any bacteria present will start to multiply."

Kevin Cain, senior veterinary student, plans to enter a mixed animal practice after graduating in May, and he values his six-week large animal rotation. Kevin says he hopes to mirror the example set by Dr. Laffin. "She's an excellent veterinarian," Kevin says. "She's very thorough and takes a practical approach to veterinary medicine, and she's very caring and a very hard worker."

Dr. Laffin's professional reproduction interests turned personal when she and husband, R.D., welcomed twin sons, Agustus and Colt, on Dec. 19, 2005. Her sons will grow up much the way she did. "I grew up on a ranch in western Nebraska. When I was little, I would put rocks in a box and

feed a pipe cleaner through the top to make a handle and take it out to the pasture and 'treat' the animals," she says, laughing as she recalls this childhood memory. "I truly have never wanted to be anything else."

The Laffins have a 250-head operation north of Manhattan. Dr. Laffin graduated from K-State in 2000 and joined the faculty at the teaching hospital in 2001. Since her arrival, she's provided individual and herd-based medicine to thousands of animals on farms and ranches within 125 miles of the teaching hospital. 🐾

Riko sits atop a mountain of marijuana following a drug seizure. The bundles have a yellow tint because traffickers used mustard to mask the scent.



Story by Patrice Scott

SEIZE THE DAY



Riko's life is at risk every day as a drug dog for the Wabaunsee County Sheriff's Office.

However, his life was on the line when he needed the very things he takes off the streets: drugs and money.

The 7-year-old Belgian Malinois (pronounced MAL-un-wah) has had an impressive six-year career at the sheriff's office. Sgt. Bill Gollner became Riko's second handler when he was hired in 2002, and the team became a formidable force in the war on drugs. They've seized \$926,000 in cash and generated \$38,000 from the sale of vehicles used to transport drugs. Bill and Riko have confiscated 579 pounds of marijuana, 86 pounds of cocaine and 26 pounds of steroids. The drugs' street value exceeds \$2.2 million.

"Drugs are hidden in commercial vehicles, refrigerated trucks, cattle trucks, personal cars and rentals. You name it," Bill says. "I see so much of this that when I rent a car, I search it."

Bill and Riko spent five weeks at the canine training academy before going on patrol. Bill learned to monitor Riko's daily habits because canine handlers are the first responders for their dogs. Bill also had to learn to speak Dutch. Commands are given to drug dogs in a foreign language so those being searched can't confuse or distract the dog. Riko was trained to sit, a passive response, when he detects drugs or cash. Some dogs are trained to respond aggressively by scratching at the suspected area.

Traffickers wrap drugs in cellophane and use coffee, mustard, baby powder and shelving paper to mask the scent. These attempts have proven to be no match for this extraordinary dog. A dog has about 220 million olfactory receptors compared to a human's five million.

Bill recalls a particularly interesting traffic stop in December 2003. The driver of a speeding car reported that he was a K-9 officer. He was wearing a suit and tie, a K-9 police officer hat and matching lapel pin. Suspicious, Bill deployed Riko who quickly sat beside the trunk. Inside were three suitcases packed with 150 pounds of marijuana. "This guy had all new gear, and it was really shiny, which is not the norm for a K-9 cop," Bill says, laughing. "And we don't dress in suits and ties and drive across the country on our time off."

Of all the stops Bill and Riko have made, none would be as important as the call they responded to in the early morning hours on Sept. 13, 2005. It would save Riko's life.

Bill and Riko were dispatched to mile marker 322 on I-70 just inside the Wabaunsee County line. A highway patrol officer had stopped an Oldsmobile Aurora from Colorado. Bill gave Riko the command to search the vehicle. Seconds later, Riko sat. Cash—\$30,000—was stuffed under the back seat. Because it was an assist, the Wabaunsee County Sheriff's Office would receive 10 percent of the find. Eight hours later, Riko's life would hinge on that \$3,000.

In the weeks before this stop, Bill had noticed changes in Riko's daily habits. He had lost weight and his high spiritedness. Bill attributed it to Riko's age and the human equivalent of job burnout. However, when Riko left food in his bowl and his daily bowel movements doubled and changed in consistency, Bill knew something was wrong. "His stools went from regular to soft, then to watery," Bill says. "Then I saw blood."

Riko's veterinarian, Dr. Amy Rowe of Millcreek Veterinary Services in Alma, examined him. "Riko was thin, and Bill got alarmed when Riko passed blood. I collected a fecal sample and ran tests. There was an overgrowth of bacteria. We put him on antibiotics, and he improved. But that only lasted three or four days after he finished the antibiotics. Then it came back with a vengeance. That's when I decided to refer him to K-State."

Dr. Rose McMurphy, anesthesiology section head and resident in emergency medicine and critical care at the Veterinary Medical Teaching Hospital (VMTH), says Riko's



Photo by Patrice Scott

situation was serious. "He was quite thin at 62 pounds and had rectal bleeding," she says. The medical team collected scrapings, aspirated his lymph nodes and took radiographs and ultrasound images of his abdomen.

Dr. Laura Armbrust, associate professor of radiology, says Riko's colon and small intestine were thickened, and his lymph nodes were enlarged. "The bowel wall thickening and enlarged lymph nodes are typical of infiltrative disease from fungal infection or neoplasia (a tumor)," she says. "These get enlarged not only from the infection itself, but also from the inflammatory cells that the body sends to the area."

Greg Jackson, senior veterinary student, explains that once they aspirated Riko's lymph nodes, they carefully spread the contents onto several prepared slides. "Within an hour, we were able to make a diagnosis," Greg says. "Bill would be relieved when we told him it wasn't cancer, but we still had to tell him that Riko had a serious disease."

Dr. McMurphy told Bill that Riko had histoplasmosis and that "left untreated, he would die."



SEIZE THE DAY

Dr. McMurphy told Bill that Riko had histoplasmosis and that "left untreated, he would die."



Photo by Patrice Scott

Above: Riko at home with Bill and Lori Gollner and Riko's best friend, Doodie.
Top: Dr. Rose McMurphy and senior student Greg Jackson examine Riko at the VMTH.



Photo by Dave Adams

Histoplasmosis is a naturally occurring fungus that lives in soil, especially soil that is enriched with bat or bird droppings. Dr. McMurphy explained that the organism enters the body when a person or animal inhales dust that contains these fungal spores. There is no way to prevent contact with this pathogen.

Dr. McMurphy further explained that Riko needed to be on a fungus-killing drug called itraconazole for six months or longer. He would have to remain on the drug for two months beyond the cessation of clinical signs. Drug therapy would cost between \$6,000 and \$8,000. And, Dr. McMurphy explained, there is the possibility that Riko would have to stay on the drug for life.

"The diagnosis and the cost of the medicine were pretty hard to handle," Bill says. "In reality you can't put a price on a partner. A lot of my decision rested on Dr. McMurphy. She was confident that we had caught it early enough."

"The diagnosis and the cost of the medicine were pretty hard to handle," Bill says. "In reality you can't put a price on a partner."

Bill was faced with a bleak reality as he called his boss, Wabaunsee County Sheriff Doug Howser. Riko was 7 years old and nearing retirement. The sheriff's office could buy a new drug dog for \$8,000.

"Bill was real choked up," Sheriff Howser says of their conversation. "I know how Bill feels about the dog and how they work together. A lot of other agencies rely upon Bill and Riko. But, as an administrator, you have to do what's best when you are dealing with other people's money. I've also known Bill for a long time, and you can't close the door on that."

While Bill was on the phone with his boss, Dr. McMurphy was calling on hers, Dr. Roger Fingland, hospital director. "I just explained the situation," Dr. McMurphy says. "Dr. Fingland agreed to help with the cost of the treatment if they could afford to pay a portion of the bill. Once I told Bill that, he got a commitment from the sheriff to pay for the initial workup and \$3,000 toward the cost of the itraconazole."

"Riko helped save his own life because of the sniff he did for the highway patrol that morning," Bill says of the sheriff's office \$3,000 cut. "For Dr. McMurphy and the hospital to come through with the donation...that was pretty amazing, you know," Bill says. "I went from the lowest of lows in the thought of losing my partner to having hope."

Riko took his first dose of itraconazole that day and has faithfully returned to the VMTH every six weeks for blood tests to evaluate his liver enzymes, which have remained normal. "Riko's gone through six months of drug therapy and the symptoms have resolved," Dr. McMurphy says. "He may have to remain on some anti-fungal therapy for several more months."

After a recent follow-up appointment, Bill and Riko held a demonstration for Dr. McMurphy and Greg in the hospital parking lot. "It's so amazing that as humans we are constantly striving for advancement," Greg says. "Yet here's Riko who is able to make Kansas a safer place because of his natural ability to smell and because of his training," Greg says. "He's already high tech. It's amazing. It's impressive."

Kansas was at risk of losing a tremendous asset in Riko. But with the help of a legal drug and medical care from caring professionals, Riko is back at work getting illegal drugs off the streets. 🐾

Left: Bill Gollner and Riko enjoy some well-deserved playtime in front of the Wabaunsee County Courthouse in Alma, Kan.



Photo by Patrice Scott

AnimaLIFE / pg.9

"The farther back you can look, the farther forward you can see."

— Winston Churchill



BLAST FROM THE PAST

Story by Patrice Scott
Photos by Brennan Engle

University of Kansas paleontologist David Burnham unceremoniously carried two flat wooden specimen boxes into the Veterinary Medical Teaching Hospital (VMTH) on a warm February day. He walked largely unnoticed through the hospital lobby to the radiology department where he met with Dr. David Biller, professor and section head of radiology.

The researchers would examine specimens that pre-date the Ice Age using technology from the Digital Age.

Inside each box was a slab of rock with a fossil from the Early Cretaceous period embedded within it. One fossil, about the size of a hawk, had already been identified as a bird. The other, roughly the size of a small eagle, is similar to a Microraptor, a birdlike dinosaur that had four wings. This specimen had serrated razorlike teeth, a killing claw used to disembowel its prey and hand claws.

Burnham says the fossils are roughly 128 million years old and were discovered in the Jehol Group, a rock formation that spans from Korea to Mongolia. (Jehol means "hot springs," and the area is much like Yellowstone National Park where geothermal springs exist due to volcanic activity.) The fossils were found in western Liaoning, China, where impoverished locals conduct digs in the fossil-rich area and sell them. The Chinese government often confiscates the fossils, which is what happened with these specimens. Burnham acquired the fossils through a joint research effort with a Chinese university.

Burnham pioneered a technique of removing rock from embedded fossils. "We look to see which side has been split from the rock," he says. "Then we turn the sample over and begin removing the rock from the side that is undisturbed. By going through the back of the rock, we can see the rock disposition. That's how I found them (fossils) in ash."

Ash is significant because it suggests that these birds and animals likely died following a volcanic eruption, and it preserved the fossils. "Some of these specimens even had food in their stomachs."

Burnham spent one thousand hours over the course of a year cleaning away microscopic bits of rock with handmade tools. After reaching a certain point, he turned to the VMTH because of its advanced digital radiography and respected radiologist, Dr. Biller.

"Radiographs give me a road map so when I go in and clean the rock off I know where the bones are," Burnham says. "Bird bones are soft and hollow, and you can easily punch through them when you're cleaning the rock."

Dr. Biller carefully positioned the bird fossil on the table. Within seven seconds of exposure, an image appeared on the computer monitor. "Look at that skull," Burnham says. "It's fantastic! This is probably the only place in the country you can see an image like this right now," Burnham says, noting the fact that finding a fossil with a skull is the equivalent of winning the lottery.

The radiograph was revealing. "The bird fossil had no teeth, which is important because many primitive birds had teeth. This makes it easier to decide whether it is a known species or a new one."



Paleontologist David Burnham, left, points out the dinosaur fossil's serrated teeth and killing claw to VMTH radiologist Dr. David Biller.

Dr. Biller explains that on radiographs, bone appears white, soft tissue appears gray, and lung or gas appears black. This is due to the amount of radiation each absorbs; Whiter areas indicate more radiation was absorbed. Therefore, bone appears whiter than the surrounding area. "We're lucky," Dr. Biller says, looking at the radiograph of the fossil. "There's still enough difference between the density of the bone versus the density of the material surrounding it to get a quality image."

Dr. Biller sees this technology as a true asset to Burnham's work. "We can adjust magnification, brightness and contrast," Dr. Biller says. "So now, he (Burnham) can take that information and enhance the image." Burnham also appreciates the digital advantage. "It allows us to see through the rock, adding striking detail to the bones impossible to see with the naked eye, and verifies that all the

components go together and are not fakes."

Using these radiographs, Burnham hopes to be the first paleontologist to create an accurate 3-D model of these animals. "We are interested in the range of motion, especially on the legs of the dinosaur. Since they were probably gliders, they must have been able to spread or sprawl the femora out to the side. For this reason, details of the hips are helpful."

This was the second time Dr. Biller and Burnham collaborated on a project radiographing fossils. When it was time to radiograph these fossils, Burnham knew exactly who to contact. "Dr. Biller was so enthusiastic, and he was very flexible because he is in a teaching hospital," Burnham says.

As a radiologist and scientist, Dr. Biller finds this work intriguing. "Although it is an animal and although it has a skeleton, it is so very different from what I do as a radiologist on a daily basis," Dr. Biller says. "What he's (Burnham) doing is really quite interesting. "If we can help someone better define something relative to science and history, we will do it," Biller says.

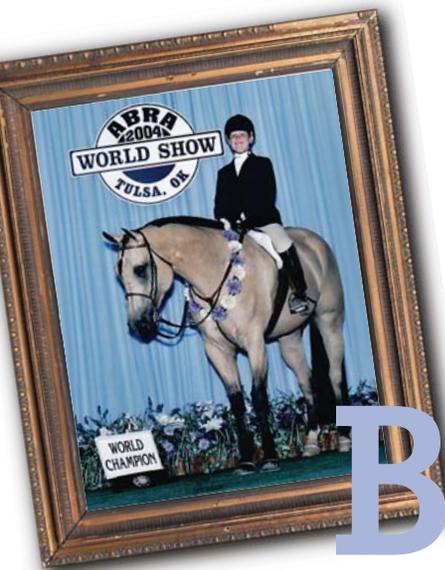
This work is important because the field of paleontology can mean the difference between science and science fiction. "The mode and tempo of evolution repeats itself time and time again," Burnham says. "We see this pattern then there is extinction. Then it starts over again. If we can learn from these patterns, we can understand where we fit into this picture. If this is going to happen again, we don't want to be the species that is wiped out."

Dr. Biller values the quest for scientific evidence. "I guess what we really want to find out is if history really does repeat itself." 🦕



"Look at that skull. It's fantastic! This is probably the only place in the country you can see an image like this right now."

—David Burnham



"I received a phone call from Buck's trainer in Topeka saying that Buck had gone over backwards during a training session."

—Chris Dietz

BUCKING THE ODDS

Above: Buck and Chelsea Dietz before his training accident.

It took nearly an hour to trailer Buck from Topeka to the Veterinary Medical Teaching Hospital (VMTH) on Feb. 9, 2005. It took about the same amount of time to help the 9-year-old quarter horse off the trailer once he arrived.

Story by Patrice Scott

Chris Dietz, Buck's owner, was at home in Russell, Kan., when her phone rang early that morning. The voice on the line said there had been an accident. "I received a phone call from Buck's trainer in Topeka saying that Buck had gone over backwards during a training session," Chris says. "Their veterinarian examined Buck and said we needed to get him to K-State right away."

Dr. Bonnie Rush, equine section head and associate dean of career development, helped unload the 1,300-pound, 16.3-hand quarter horse. "We sedated him and carefully got him out of the trailer," Dr. Rush says. "He was depressed and hypersensitive to sound and touch. He was not aware of his surroundings. He had a laceration above his right eye, his eye movement was uncontrolled and he was uncoordinated."

Chris and Perry Dietz and daughter, Chelsea, made the two-hour drive to Manhattan and rushed to Buck just as he was being ushered off the trailer. "When we got there we were all talking," Chris says. "Buck heard my voice and he turned his head to find me, and he came crashing down. It was just awful. When I saw him, I really didn't think he was going to make it."



Left: On July 26, Buck and the Dietz family returned to the VMTH for a critical evaluation. Doctors had just cleared Buck to be ridden.

Below: A despondent looking Buck tries to steady himself after enduring one of nine seizures his first day at the VMTH.

Once Buck settled into a padded stall in ICU, Dr. Rush offered him food. "I fed him a little bit of hay to calm him down. As soon as he started to chew, he passed out. Later he had seizures when he tried to chew. That was presumptive evidence of a skull fracture."

Senior veterinary student Dan Ellis was assigned to the case and vividly remembers Buck's first seizure. "He just exploded over and then went

rigid," Dan says. "I ended up jumping up onto one of the walls. My heart was pumping. I'd never seen a horse seize."

Unfortunately, Dan would witness it again—and again. Buck had nine seizures in 24 hours that ranged from grand mall to focal (partial) seizures. Each lasted between 30 seconds and one minute, and Buck was recumbent (collapsed) after four episodes.

Dr. Rush ordered X-rays which confirmed Buck had a skull fracture. The reason Buck lost consciousness when eating, she explains, was to relieve pressure. The hyoid apparatus is a complex of bones located at the base of the tongue that support the tongue and muscles. "Every time Buck would chew or swallow, it would put pressure on the fracture site," Dr. Rush says.

The pressure on Buck's brain was so great that when his body responded, the best and worst things happened. "When taking the X-rays, spinal fluid started to leak out of Buck's ear," Dr. Rush says. "That was actually a good thing because it took pressure off of his brain." Cerebrospinal fluid (CSF) is a clear liquid that cushions the brain and spinal cord from injury. "When the CSF leaked from his ear, we had to be concerned about meningitis because it created an open line of communication between the bacteria in his ear and his brain," Dr. Rush says.

Buck was placed on broad spectrum antibiotics to ward off infection. He was also given three drugs to reduce the swelling in his brain. He was given anti-seizure medications, an anti-ulcer medication to relieve stress, and drugs to control pain.



Buck and Chelsea after placing in every event shown at the 2005 American Quarter Horse regional competition in Tulsa, Okla. Also pictured are Buck's trainers.

Photo courtesy of Larry Williams Photography.



Buck's situation was critical. "If we don't see improvement in the first 72 hours, we're in a lot of trouble," Dr. Rush told the Dietz family.

Chris was suddenly taken back to the day Buck became a member of the family. They'd seen an ad in the newspaper for a 6-month-old colt and drove to Missouri to see him. The minute they saw the long-legged, gawky, buckskin horse, they had to have him. "We just had to take him home," Chris says. Now, looking at Buck in the VMTH, Chris was left wondering if he'd ever make it home.

Buck was constantly monitored and evaluated at least three times a day, Dan says. Dr. Rush says they assessed Buck's rapid eye movement, his ability to eat and swallow, his level of coordination, his facial nerve function and his sensitivity to light and sound.

Buck responded to the medications and showed improvement within those critical 72 hours. However, this was clearly only the first hurdle. "Nervous tissue heals very slowly," Dr. Rush says. To survive, Buck had to continue to demonstrate improvement through the first week, which he did. The next medical landmarks are at eight weeks and six months.

"Buck holds five ABRA (American Buckskin Registry Association) World Titles but the most amazing awards are those he received in 2005 after the accident."

—Chris Dietz

"I tell clients that the horse you have in six months is the horse you are going to live with."

On Feb. 21, while Buck's nervous tissue was still healing, he was discharged from the hospital and sent home with his nervous owners. "I was terrified when we loaded his wobbly body into the trailer for the two-hour ride home," Chris says. "All went well. The hardest part for Buck at home was the eight weeks of stall confinement."

Buck was confined to a stall as a precautionary measure to avoid further injury. "Several things can happen in the short term that can be catastrophic, such as re-injuring the fracture site," Dr. Rush says.

Dr. Chuck Stinchcomb, Buck's veterinarian, made weekly trips to the Dietz farm. "We examined him frequently," Dr. Stinchcomb says. "We were looking for any signs of improvement or regression. Buck just always showed improvement."

On July 26, Buck returned to the VMTH for a follow-up appointment. "They returned for a neurologic evaluation, and we cleared him to be ridden," Dr. Rush says. No one was happier than Chelsea.

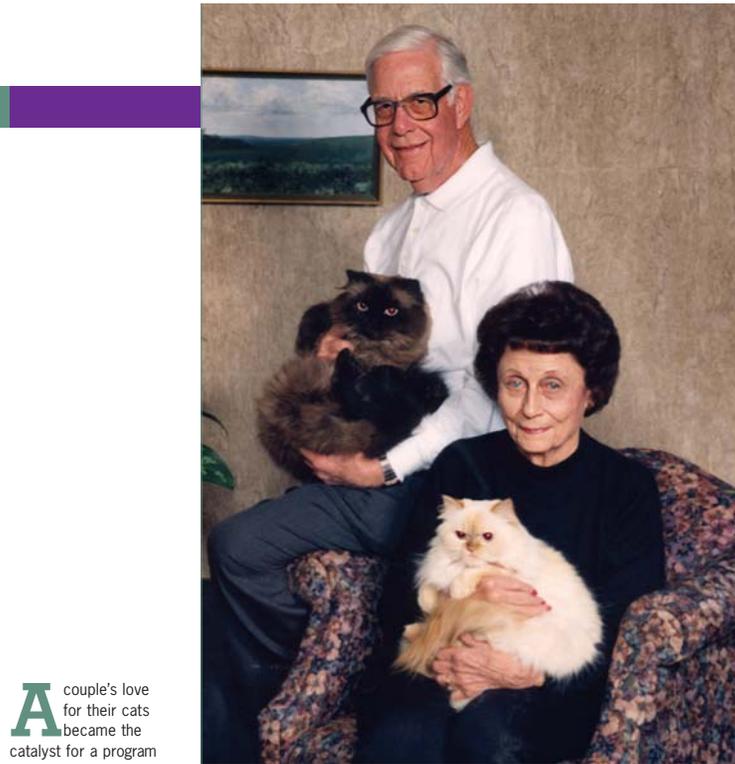
Chris says that Chelsea was confident Buck could handle a rider. "I've known Buck for so long, and I knew he would do his best to try not to hurt me or himself," Chelsea says. "To be able to ride Buck again was a miracle."

The doctors agree. "There are little miracles out there," Dr. Stinchcomb says. "Buck just really responds to Chris and Chelsea and this proves what can happen when an animal has that level of interaction, stimulation and encouragement."

Chelsea so believed in Buck that she decided to enter a horsemanship in Oklahoma in August, six months after his accident. Chelsea hoped for a top 10 finish in one class. That, she decided, would make all their efforts worthwhile. "They won," Chris says. "They placed in every event shown and to this day Chelsea does not realize was an accomplishment that is. Buck holds five ABRA (American Buckskin Registry Association) World Titles but the most amazing awards are those he received in 2005 after the accident."

Dan was pleasantly surprised to learn of Buck and Chelsea's return to competition. "That is phenomenal," he says. "From where he was and questioning if it was even going to make it out of the hospital to returning to an athletic life, that's pretty amazing." Dr. Rush echoes that sentiment. "The odds were against Buck that he would go on to that level of performance," Dr. Rush says. "A minority of horses go on to full performance with this severe of an injury."

Chris appreciates the time they've shared with Buck since the accident. "Had it not been for the doctors, interns and students at the Veterinary Medical Teaching Hospital, Buck would just be a memory for us," Chris says. "We thank everyone from the bottom of our hearts." 🐾



The history of the Perpetual Pet Care Program can be traced to a history teacher and her husband.

Story by Patrice Scott
Photo by Dave Adams

to find a home for Tiffany and Coco when they needed one.

"We sat down and outlined what we wanted provided, and Dr. Mosier outlined what he thought

they could provide," Lou says. The cats' future home must meet certain stringent requirements, and for their efforts, the Balls would provide financial assistance to the College of Veterinary Medicine through a trust. The agreement required that Tiffany and Coco continue to receive excellent care, just as they had at home. They signed the agreement in February 1996.

That agreement grew into the Perpetual Pet Care Program (PPCP). Today, there are 18 families with 65 animals enrolled in the program with a giving commitment of nearly \$4 million. "I'm glad that people are thinking about how to provide for their pets," Lou says.

Through a bequest, the pet's medical care is covered for life. The remaining balance can be designated to support initiatives such as hospital renovations, programs and services.

This February marked the 10th anniversary of signing the Balls' agreement and the creation of the PPCP. It also marked the passing of Coco, at age 14. But Lou and Norma Jane find great comfort knowing that if the day comes, Tiffany will be well taken care of for life. 🐾

A couple's love for their cats became the catalyst for a program designed to provide care for pets when an owner is no longer able.

Lou and Norma Jane Ball were in their 70s when they bought purebred Himalayan litter mates, Tiffany and Coco, in 1992. The "kids," as the Balls refer to them, are the couple's only family members.

"We (Lou and Norma Jane) got into a conversation that we were at the age that we did not know if we could take care of the kids," Lou says. "We needed for them to have a good opportunity to have a good life. In the conversation, we came to the conclusion that we could get the care we were looking for by working with the vet school."

They came to this natural conclusion after two decades of positive experiences with the K-State Veterinary Medical Teaching Hospital (VMTH). Before Tiffany and Coco, the couple had a Persian, Danny Boy.

"Our association with the clinic has been continuous from the day we got Danny Boy to today," Lou says. "By using it (teaching hospital), we have gotten the best in treatment and knowledge."

The couple approached Dr. Jake Mosier, then hospital director, about their idea. The Balls looked to the hospital

10 YEARS PERPETUAL PET CARE PROGRAM

For more information about the Perpetual Pet Care Program, please contact Patrice Scott, VMTH marketing and development officer, at 785.532.4046 or email her at pscott@vet.k-state.edu.

RESTORING



ORING

A NATIONAL TREASURE



Photo by Patrice Scott

Story by Patrice Scott



Photo by Patrice Scott

Above: Alaska, an eagle at Sunset Zoo, is able to see clearly after a successful surgery.

Our nation's forefathers selected the bald eagle as the national symbol in 1782 because of its imposing presence, fierce independence and clear vision. But what happens when this proud bird's vision is impaired? Just ask the specialists at the Veterinary Medical Teaching Hospital (VMTH) at K-State.

Known for their keen eyesight, bald eagles can see a rabbit from a mile away, and their vision is at least four times sharper than that of a human with perfect eyesight. When a bald eagle swoops down from several hundred feet to catch a fish, the bird's powerful talons skewer its prey with 1,000 pounds of pressure per square inch.

When Alaska, a 32-year-old female bald eagle at Sunset Zoo in Manhattan, wasn't eating food unless it was placed directly in front of her, zookeepers knew there was a problem. And, her eyes had a cloudy appearance, the telltale sign of cataracts. Ryan Gulker, general curator at Sunset Zoo, says Alaska's situation progressed rapidly. "It was surprising how quickly this happened."

Exotic animal medicine veterinarians at the VMTH confirmed Alaska had cataracts while performing an annual wellness examination. Zookeepers and veterinary specialists monitored her situation, which was clearly worsening. "The keepers observed that she was bumping into obstacles, like branches and perches, when she tried to change her position or when she'd get startled," says Dr. Connie Ketz-Riley, clinical assistant professor in exotic animal, wildlife and zoo animal medicine. "She wasn't consuming food unless it was right at her feet."

Dr. Rachel Allbaugh, ophthalmology resident, says Alaska was fortunate to be in captivity given her handicap. "Were she in the wild, she would have starved to death." Dr. Harriet Davidson, professor of ophthalmology, explained to zookeepers that Alaska's vision could be corrected with phacomulsification, a procedure to remove cataracts. She says that cataracts impair vision by robbing the eye of light. "By removing the opaque lens, or cataract, light is able to penetrate to the retina and this is what allows vision."

The veterinary specialists met with zookeepers and presented their options. "After consulting with the veterinarians and the specialists in the ophthalmology department, we weighed the pros and cons and the pros won," Ryan says. "Even though she is an aged bird, we could improve her quality of life."

The procedure was scheduled for March 14, and it required intense preparation to minimize



Photo by Berman-Engle

Above: Dr. Rachel Allbaugh (center) and Dr. Harriet Davidson perform ophthalmologic surgery to remove Alaska's cataracts. Her eye is visible on the monitor in the background. Left: Ryan Gulker and Lisa Greening with Sunset Zoo secure Alaska while Dr. Allbaugh performs a post-surgery examination.

the bird's stress. "We did everything possible to reduce her time in confinement for surgery," Dr. Ketz-Riley says. "We caught her mid-morning and brought her to the teaching hospital. She was given an ophthalmologic exam to evaluate the structure of the eye and retinal function. Her retinal function was normal in both eyes so we decided to proceed."

Surgery offered abundant challenges because of the bird's eye structure, age and stress level. Because of these factors, there would be additional risks associated with anesthesia.

Alaska was placed in a deep plane of anesthesia because of her complicated eye structure. An eagle's eyelids close during sleep, but they also have a nictitating membrane, or third eyelid, that sweeps dirt and dust from the cornea about every three seconds. "When anything touches the eye, it triggers muscle movement and the third eyelid protrudes," Dr. Ketz says. "This needed to be neutralized for surgery. We had to keep her in a deeper anesthetic plane, which increases the risk for the bird."

For one and a half hours, Drs. Davidson and Allbaugh performed microsurgery on Alaska. Dr. Ketz-Riley says they knew soon after surgery that it was a success. "The surgery could not have gone better," Dr. Ketz-Riley says. "As soon as keepers put her food down, she went right after it."

On April 7, the specialists were able to examine Alaska and evaluate her progress. "We were thrilled at how great her eyes looked," Dr. Allbaugh says, adding it was difficult waiting so long to examine the bird. "We wanted to examine her, but we didn't want to take the chance of stressing her or causing her to tear her sutures that are the size of a strand of hair," Dr. Allbaugh says.

It was gratifying for the veterinarians to help Alaska, and they hope the 65,000 people who visit Sunset Zoo stop by to see her. "We are proud to have been able to extend the life of this very important animal," Dr. Ketz-Riley says. "The specialists in our hospital are incredibly dedicated, compassionate and versatile professionals. Stop by the zoo and see Alaska if you have a chance. She will be looking back at you!" 🐾

EAGLE SPECS:

Wingspan: 6 to 8 feet
 Weight: 9 to 14 pounds
 Flight speed: 35 to 44 mph
 Diving speed: 75 to 100 mph
 Flying altitude: Up to 10,000 feet
 Feathers: 7,000

National Symbol: Chosen over the wild turkey. (Ben Franklin advocated for the wild turkey saying the bald eagle was of "bad moral character.") The bald eagle is indigenous to North America.

Sight: Eagles can see forward and to the side at the same time because they have two foveae, or centers of focus.

Life expectancy: 40 years in the wild, longer in captivity.



A GRAND ENTRANCE

Story by Melissa Cessna

The Veterinary Medical Teaching Hospital (VMTH) at K-State is rolling out three new programs designed to make it easier for animal owners get the best care for their pets.

Two of the programs are for our newest patients, puppies and kittens. The Puppy and Kitten Wellness programs provide all of the essential medical services new pets need, including routine tests, core vaccines (given to every puppy/kitten to decrease diseases affecting the entire population) and examinations. The veterinarians in the Pet Health Center will also examine pets for signs of hereditary, congenital or physical problems, and advise owners about proper nutrition. Enrollment includes multiple examinations and the cost of a spay/neuter.

"I knew it would be a good savings, and the package was everything he would need this first year, so it was ideal," says VMTH client Arletta Paddock, who recently enrolled her puppy, Alexander.

Dr. Susan Nelson, Pet Health Center clinical assistant professor, says the plan is a convenient option for new pet owners. "Clients like this plan because once they enroll, they've got things planned out and they know what services they'll be receiving. It's also a less expensive way to get full service veterinary care."

For Lisa Coppock and puppies Dash and Dottie, accountability is another factor in the program's appeal. "Once it's paid for, I'm more likely to take them in for their vaccines when they're supposed to be done."

The veterinarians in the Pet Health Center assess each puppy and kitten to determine if it requires non-core vaccines. These vaccines are only given to pets at high risk for contracting certain diseases. All pets are dewormed for roundworms and hookworms and given a heartworm preventive and pedicure. During this visit, doctors can advise the pet owner on which form of flea and tick control is best for their puppy or kitten.

Because this is the ideal time to microchip your pet, the cost is included in the wellness plan. A microchip is about the size of a grain of rice and is injected into a flap of skin on the neck. The microchip contains owner information, and shelters can read it using a scanner.

For more information on the Puppy or Kitten Wellness programs or to enroll, please call the VMTH at 785.532.5690.



photo by Dave Adams



NOW PRESENTING...

The teaching hospital's newest program, the gift certificate program, is truly the ultimate present for an animal lover. Gift certificates are available in \$25 increments up to \$200 and apply to all hospital services. Gift certificates can be purchased with cash or credit card by contacting Jill Bowman, hospital fiscal officer, at 785.532.4437.

The Referring Veterinarian



Dr. J.D. Fink and his 5-year-old triplets, Jon, Seth, and Ben with Lulu, an English Pointer puppy, and Augie, the guinea pig.

Story and photos by Patrice Scott



Tom Dasenbrock, with Ringo, his black Lab. Dr. Fink referred Ringo to the KSUVMTH in April.

My THREE sons and THREE daughters

Family flexibility probably was not the reason Dr. J.D. Fink became a veterinarian. But 17 years after graduating from K-State, that's become one of the highlights of his career.

veterinarian who understands hunting dogs and who would be there if they needed care. "He (Dr. Fink) hunts and we share that common interest. I've had dogs all of my life, and this is the first veterinary clinic my dogs run to the door. I don't know how he does it, but my dogs always enjoy coming to see Dr. Fink," Tom says.

Dr. Fink referred Ringo, Tom's 10-year-old black Lab, to the Veterinary Medical Teaching Hospital (VMTH) in April. He's looking forward to referring cases to trusted specialists with a K-State connection—only without the drive. This summer, the teaching hospital's satellite clinic, Midwest Veterinary Specialty Hospital, will open in Omaha. "The veterinarians in the area have embraced the idea," he says. "We are looking forward to having a specialty hospital to refer patients where they will receive cutting-edge care from experts in their field."

He is certain many animals will be helped simply because of the proximity. "People aren't resistant to traveling to KState so their pet can receive advanced medical care," Dr. Fink says. "But a limiting factor is taking time off to travel to Manhattan, and then to make a return trip to pick up the pet or to drive back for a follow-up visit. Finding time like that can be a hardship."

While Dr. Fink turns to medical experts to help with cases, he turns to his wife, Tami, for financial expertise. "Tami handles all of the payroll, bookkeeping, taxes and inventory for the clinic," he says. "She worked with me every day until she had the boys."

Dr. Fink and Tami have six children: Jen, 21; Amy, 19; Emily, 10; and Jon, Seth and Ben, 5. Their four-legged family members are: Lulu, an English Pointer puppy; Anna, a Brittany Spaniel; and Augie, a guinea pig.

Dr. Fink returned to his home state of Nebraska following graduation in 1989 and joined Millard Veterinary Clinic. He worked there for a year before accepting an internship in Sacramento, Calif. "I wanted to experience everything veterinary medicine had to offer," Dr. Fink says. "I wanted to work with specialists and further my education." Following his internship, he decided to return to the Midwest because it was the ideal place to raise a family. He worked in Lincoln, Neb., until 1997 when he opened his solo practice, Animal Center West Omaha. On Wednesdays, Animal Center West Omaha is anything but a solo practice.

"My sons come to work with me every Wednesday for a half day. It makes things interesting, but I wouldn't have it any other way," Dr. Fink says. Interesting may be an understatement since his sons are 5-year-old triplets, Jon, Ben and Seth. "First thing in the morning they help me walk the little dogs. By mid-morning they get a little bored," Dr. Fink says. "I give them eyedroppers that they fill with water and clean the cracks in the sidewalk, which keeps them occupied for awhile. Most of my clients are pretty understanding."

One such client is Tom Dasenbrock, who has brought his hunting dogs to Dr. Fink for about seven years. Tom says it was important to have a



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Animal**LIFE**

Raising Cane

Cane, a chow rescued in Louisiana by senior veterinary student Kami Linnens, has a permanent home. Khristina Stegman and her daughter, Maddy, have opened their Baldwin City home to the dog that was nearly euthanized after barely surviving two hurricanes.

Cane adapted to his new home quickly, especially when Khristina began cooking salmon for him. "He really likes fish and seafood, being from Louisiana," Kami jokes. "He gets along great with their other dogs and is best friends with Maddy."

Kami says she misses Cane dearly but is happy that he has found a permanent home. "I may have lost a dog, but I gained a very dear friend in the process."

Cane's ordeal was chronicled in the Fall '05 issue of "AnimalLIFE." To read it, please go to Web site www.vet.ksu.edu and click on teaching hospital.

From Left: Maddy and Cane with senior student Kami Linnens (center) and Khristina Stegman.



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