

AnimalLIFE

Winter 2013



Veterinary Health Center

AT KANSAS STATE UNIVERSITY

TO DISCOVER. TO TEACH. TO HEAL.

FEATURING

Performance Horse's Career Saved

VHC Dedicated to Improve Local Icon

Working Dog Battles Cancer

Anesthesiologist Uses Unique Talent

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

In my first year with the VHC, I have witnessed a passion that only exists in the realm of animals. The bonds I have seen develop between doctors, students, animals and clients are moving, inspiring and constantly exceeding expectations.



Kristin Clement, editor, and new addition, Ebby

In this issue, I share the story of two families whose passions brought them together to save a horse. The bond that is instantly created over an animal can quickly become a meaningful friendship. Families go through such hardship and sacrifice for the pets they love. Upon meeting for the first time, clinicians, students, clients and complete strangers, can be instantly connected through an overwhelming and mutual understanding of the human-animal bond.

We have animals to thank for bringing us together and being the underlying inspiration for more than this magazine or the VHC, but for the way we live our lives. This reminds me of a favorite quote by an unknown author: "My goal in life is to be as good of a person as my dog already thinks I am." It is a lofty goal to be the person your dog (cat, horse, pet) thinks you are, but what are we without high aspirations?

Best Wishes,

Kristin Clement

Photo: KSU Photo Services

AnimaLIFE

VETERINARY HEALTH CENTER AT KANSAS STATE UNIVERSITY

Winter 2013

AnimaLIFE is published semi-annually by the Veterinary Health Center at Kansas State University.

Editor/Design:
Kristin Clement
1700 Denison Ave
103 Trotter Hall
Manhattan, KS 66506
785.532.4046
knclement@vet.ksu.edu

Photography
Kristin Clement

Advertising
For advertising information, please contact Kristin Clement.

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Veterinary Health Center
AT KANSAS STATE UNIVERSITY

TO DISCOVER. TO TEACH. TO HEAL.

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Our VHC family continues to grow and, as a result, we have many facility upgrades in progress. We appreciate the wonderful people who continue to make this growth possible. Our clients who trust us with the lives of their beloved family members; our faculty who dedicate their lives to saving others; our students who will carry on the tradition of excellence that is the VHC; our referring veterinarians who play a vital role in our success; and our donor family whose passion for animals and education motivates them to support the VHC so others may benefit. Thank you.

A dear friend and dedicated supporter of the College of Veterinary Medicine recently passed away. Lou Ball will be greatly missed, but his legacy will continue to give students the dream of practicing veterinary medicine, and his memory will live in those of us who knew him and be an inspiration for our work and our lives. He and his wife, Norma Jane, have positively impacted veterinary medicine at Kansas State University for generations to come.

In this issue, we make an exciting announcement about a facility upgrade at the Sunset Zoo in Manhattan. The quarter million dollar renovation to the hospital at Sunset Zoo will serve the animals who bring a distant world to our backyard. The Sunset Zoo is an incredible facility for our community and the VHC is proud to provide the best care available to ensure the health of its animals.

If you have not done so recently, stop by and see us. It is a wonderful time to visit and experience the VHC at its best. Please enjoy this edition of *AnimaLIFE*.

Thank you for supporting our hospital and thank you for caring about animals.

Warmly,



Roger B. Fingland, DVM, MBA, DACVS
Executive Associate Dean
Director, Veterinary Health Center



Photo: KSU Photo Services



Dr. Elizabeth Davis guided Philip Allen and Jordan Bryan through VRSP. The group is pictured with Far From Over (Farrah), a horse kindly donated by Dr. William Reed.

Dr. Elizabeth Davis' childhood fascination with horses led her to a career in veterinary medicine, but it is her passion for teaching and research that set her apart as an exceptional clinician, scientist and educator. Now, Dr. Davis shares her passion for research by leading students through an exceptional program, developing future research scientists.

Dr. Davis, equine internal medicine professor and section head, focused on a career in veterinary medicine from a very early age. She attended the University of Florida for her Doctor of Veterinary Medicine degree where she thought she saw herself eventually practicing small animal medicine. "I quickly realized there was really no comparison to being with a horse, working on a horse, working with horse people," Dr. Davis said.

With the advice of her mentors, she applied for an internship at Kansas State University. "K-State had a very good reputation - the equine section in particular was highly recommended."

Her internship then led to a combined residency, Ph.D. program in the College of Veterinary Medicine at Kansas State University. Despite her plan to move west and go into private practice, Dr. Davis could not turn down an offer to join the VHC faculty in 2003 upon completion of her residency program. "After being

here, learning the system in terms of working with students and having the opportunity to work on research projects, I thought, 'Wow, this is really fun,'" she said.

Dr. Davis' research and educational contributions have impacted the VHC faculty and the veterinary profession as a whole. As the VHC equine section head, she maintains its elite status among veterinary schools, while also being actively involved in a number of organizations including being elected president of the Kansas Veterinary Medical Association for 2014. All of these appointments coincide with a demanding teaching schedule, maintaining her own research program, and serving as major professor for three undergraduate students. "I try to be the very best teacher I can be and I take that very seriously," Dr. Davis said.

Dr. Davis' determination to help students is noticed and admired by her peers. Dr. Bonnie Rush, Clinical Sciences department head, said "Dr. Davis is meticulous and compassionate, and strives to deliver excellence in every aspect of her work."

Dr. Davis is especially dedicated to giving students research experience through the Veterinary Research Scholars Program (VRSP), a 12-week summer research program that provides veterinary students the opportunity to learn about a career in research. "We hope we can be an important pipeline for future research scientists to staff facilities like the National Bio and Agro-Defense Facility (NBAF)," Dr. Davis said.

VRSP allows students to spend the summer conducting novel research alongside researchers from departments around campus. At the end of the summer, students join scholars from all over the world to present their research. Students who complete the program are four times more likely to pursue advanced training including research opportunities.

The continuation of the VRSP hinges on funding. Currently, it is funded through grants from NIH and Merial Animal Health. Those funds are not guaranteed and Dr. Davis stresses the importance of securing additional funding to ensure these programs continue. For more information on the program or its needs, contact us at 785.532.4046. ▽

"I try to be the very best teacher I can be and I take that very seriously."

- Dr. Beth Davis

Sharing A VISION

Two families brought together to give this mare a new look on life.



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Left: Kelly and Cadillac compete before Cadillac developed cataracts. Above: Dr. Amy Rankin maneuvers probes of the phacoemulsification machine during cataract removal surgery.

Kelly Schrunk's 3-year-old son stood beside Four Door Cadillac, Kelly's elite barrel-racing mare. He reached up to pet the normally calm horse on the shoulder and Cadillac startled. Kelly and her husband Dustin's suspicion that her horse was losing sight in her left eye had just been confirmed.



Dr. Amy Rankin is assisted by students and resident, Dr. Jane Ashley Stuckey during Four Door Cadillac's recheck appointment.

to the VHC for the initial consult. After the examination, Dr. Rankin was surprised that Cadillac was a good candidate for surgery despite her age. The decision to proceed with the surgery was an easy one and Cadillac's surgery was scheduled for the middle of June.

Cataract removal in horses is uncommon and, until a year ago, the VHC did not have the equipment necessary to perform cataract surgery on large animals. This surgery is done frequently in dogs, but horses' eyes are bigger which complicates the surgery. It was because of the generosity of Mark Chapman and Cheryl Mellenthin of Cat Spring, Texas, that the VHC could offer the surgery to Cadillac. Chapman and Mellenthin donated the funds for a phacoemulsification machine that could be used to remove cataracts from large animals. "Many machines used in the hospital are from human hospitals, adapted to meet veterinary needs," Dr. Rankin said. "But the phacoemulsification machine Cheryl and Mark purchased for the VHC is the only one on the market specifically for use in veterinary patients."

Complications Pile Up

During the preoperative evaluation the day before Cadillac's surgery, Dr. Rankin found that the mare's lens capsule had ruptured. "If you think of the eye as an M&M, this would be a hole in the candy coating," she explained. At this point, the surgery could potentially have more complications because of the hole in the posterior lens capsule. After weighing the

continued from page 5...

Kelly had been showing Cadillac for six years and the 13-year-old mare was performing at a high level. In January, Kelly thought Cadillac was suffering from pain in the hocks, a condition common in barrel racers. Looking back, Kelly realizes that Cadillac was showing initial signs of vision impairment.

Looking for Hope

After Kelly realized the gravity of Cadillac's condition, she began researching vision loss. Suspecting a cataract due to the cloudy appearance of Cadillac's eye, a friend referred her to a specialist they thought could help Cadillac. When contacted, the specialist dismissed the case saying nothing could be done. Kelly solemnly accepted the fact that Cadillac's barrel-racing career had run its course, so she made other plans. Kelly was attempting to breed Cadillac when her veterinarian mentioned she should contact the VHC about Cadillac's cataract. "Fortunately, none of the embryos took," Kelly said and with renewed hope, she contacted Dr. Amy Rankin, assistant professor of ophthalmology at the VHC.

Dr. Rankin confirmed there was a surgery that could be done to remove a cataract, but the chances of Cadillac being a good candidate were low because of her age. "Older horses typically have inflammation in their eye which keeps them from being a candidate for a successful surgery," Dr. Rankin explained. Despite the possibility of a poor prognosis, Dr. Rankin encouraged Kelly to bring Cadillac to the VHC for consultation.

Eight months pregnant, Kelly drove Cadillac five hours

risk of complete vision loss to the possibility of a successful surgery, Kelly told Dr. Rankin to proceed with the surgery.

Phacoemulsification is accomplished by inserting a tiny probe through a small hole in the anterior lens capsule. The machine uses high-frequency ultrasound waves to break up the cataract and simultaneously aspirate the fragments. It only took about three minutes for the phacoemulsification machine to break apart and remove Cadillac's cataract.

Cadillac's surgery was a success, thanks to the remarkable skill of Dr. Rankin and her surgery team plus the expertise of Dr. Rose McMurphy and the anesthesia team.

Unfortunately, Cadillac's roller coaster ride was about to take another downward turn. The day after surgery, Cadillac began showing signs of colic, a potentially life-threatening condition that likely resulted from a number of stressors Cadillac experienced in the preceding week: change in feed, change in exercise, general anesthesia and the additional stress of a major surgical procedure. Despite close monitoring and proactive treatment by Dr. Elizabeth Davis, professor and section head of equine medicine and surgery, Cadillac's condition required another surgery. The VHC equine surgery team successfully treated her colic and Cadillac's stay was extended to ensure her safety.

Road to Recovery

Cadillac was released from the VHC to return home

with instructions of limited exercise and daily antibiotic therapy. Kelly and Dustin brought Cadillac back for regular recheck appointments. "Cadillac has regained vision in that eye and her recovery is going very well," said Dr. Rankin.

When asked about the impact of Mark and Cheryl's gift, Kelly says "I was ready to give up. We wouldn't have had this opportunity if it weren't for the VHC and Mark and Cheryl. We are very thankful." Kelly is anxious to begin running Cadillac again and they hope to start competing this spring. It is hard to tell who is more anxious to get back to racing, Kelly or Cadillac, but it is certain that the cataract surgery has given them both great hope for a bright future. ♡



Photo: Wrenn Pacheco

Owners Dustin and Kelly stand with Dr. Rankin after a successful post surgery recheck at the VHC.



Cheryl Mellenthin, Zipper and Mark Chapman

Vision ENHANCED

Cheryl Mellenthin and Mark Chapman's donation was inspired by their own story of a special horse desperately needing surgery. They found Lucky after he had been neglected for days and rescued him. "He'd been tied to a pole at least three days without food or water," Cheryl said. One eye had been badly injured long ago, and the other was clouded by a cataract. "There was no place for us to go. We could have gone to Colorado or maybe Florida, but from Texas, that's just not practical. K-State needed it and this way, those around here who need the help can now get it."

As for Lucky, he is blind, but he stays with Cheryl and Mark and a number of other rescued animals. People like Cheryl and Mark touch lives through their passion for the human-animal bond and their generosity which creates hope where there was none; light where there was darkness.

Above & Beyond

VHC anesthesiologist has unique talent for inventing and improving.

Although often behind the scenes, anesthesiologists begin work long before a medical procedure starts and continue long after the surgeon ties the final suture. From his first day with the VHC in 1989, Dr. David Hodgson has focused on establishing and maintaining a top level anesthesia service with the goal of ensuring optimal patient safety and comfort.

Dr. Hodgson, professor of anesthesiology, has developed many innovations to improve the process of anesthesia delivery. He has designed and redesigned equipment to fit the unique needs of different types of animal patients and medical procedures. Dr. Hodgson and his colleagues have impacted the anesthesia process in large animal surgery in particular. His inventions and design concepts have influenced and enhanced the field of veterinary anesthesia well beyond the VHC.

First Things First

Dr. Hodgson and Dr. Rose McMurphy, section head of anesthesiology, initially recognized the need for dedicated anesthesia workspace in large animal surgery and set to work on their first collaboration, designing each room to make the process easier, safer and more functional. The induction room features an induction stall with a squeeze gate. After administering anesthesia, the team can slowly release the gate, and hoist the patient onto a portable surgery table via a lift system anchored from the ceiling. Other universities and equine clinics now build similar facilities based on this design. “The functionality of this room is something Dr. McMurphy and I have a lot of pride in,” Dr. Hodgson said.

Before entering the induction stall, the horse’s mouth must

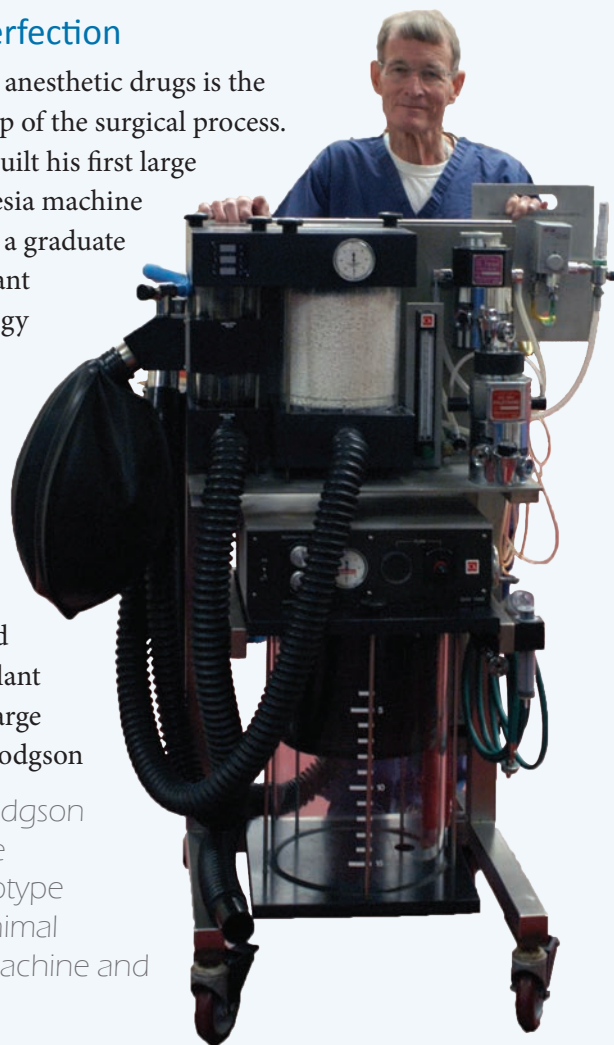
be washed to remove feed material that might enter the airway. Dr. Hodgson designed a wand that delivers the ideal amount of water through a stainless steel tube that the animal readily accepts without stress. This method replaces the use of a syringe to rinse the mouth with water, which horses have typically resisted.

Pursuing Perfection

Administering anesthetic drugs is the critical first step of the surgical process.

Dr. Hodgson built his first large animal anesthesia machine years before as a graduate research assistant in the physiology department at the College of Veterinary Medicine (CVM). His most complex innovation is a machine used to deliver inhalant anesthesia in large animals. Dr. Hodgson

Dr. David Hodgson shows off the original prototype for a large animal anesthesia machine and ventilator.



built three prototypes over the course of a year, before the final iteration satisfied his critical eye for perfection. Dr. Hodgson’s mind was always working, problem solving and anticipating the things that would make this machine more efficient and safe. The machine’s design and function was a success due to his dedicated work ethic and relentless pursuit of perfection. The combined anesthesia machine and ventilator is now marketed throughout the United States and is distributed internationally.

Rest Easy

Once surgery is complete, the anesthesiology team begins the last major step, which is a safe recovery. When the recovery stalls were redesigned, the same hoists used in the induction room were installed in the recovery room to gently move the patient from the operating table onto the specially designed recovery pillow. The pillow is inflated with air to surround the animal. The patient is gently supported during recovery and the pillow limits the patient’s ability to thrash or panic which could be harmful following a surgery. The pillow is deflated when the patient is calm enough to stand without injuring itself. This technique removes the need for the anesthesia team to be in the recovery stall when the patient wakes which can be dangerous.

Dr. Hodgson creates masterpieces in a field that is anything but ‘behind-the-scenes’. His work continues to improve the anesthesiology process from beginning to end. ▼

“My desire is to make things work better. But the underlying goal is to make them more efficient or easier to use which will ultimately contribute to increased patient safety.”

- Dr. David Hodgson



Dr. Hodgson uses the mouthwasher to prepare a horse for surgery.

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Exotic Expansion

Sunset Zoo Renovations

The VHC expands and renovates facilities to better serve the exotic animal collection at Sunset Zoo in Manhattan, Kansas.



Photo: Al Henry



Brian Davoren, Sunset Zoo's General Curator, looks on as Dr. James Carpenter, assisted by Dr. Katie Delk, intern, and a student, examines an otter.

Dr. James Carpenter, professor of zoological medicine, has been treating the animals of Sunset Zoo for the past 22 years. Recently, Dr. David Eshar joined the VHC as assistant professor of zoological medicine. Together, with a team of students, technicians and an intern, they provide care to more than 200 Sunset Zoo residents throughout the year.

The zoological medicine team works out of a one-room clinic in a small building at Sunset Zoo. Ironically, this building was the first animal shelter in Manhattan built in the 1950s on land donated by E.J. Frick, legendary former head of the department of surgery and medicine. Sunset Zoo and the VHC were destined to have a strong connection from the very beginning.

Packing It In

To prepare for trips to the zoo, the team, including fourth-year veterinary students, spends every Tuesday and Thursday afternoon preparing, packing and double-checking that they have everything necessary to perform physical exams, vaccinations, dentals, and blood tests. Early Wednesday and Friday mornings, even before the rest of the hospital is buzzing, the team heads to Sunset Zoo.

On the day we visited the clinic at Sunset Zoo with the zoological medicine team, the zoo's two Asian small-clawed otters, Bagus and Nary, were receiving their annual exams. Each otter weighs just a few pounds, slightly larger than a ferret. Once they arrived, the team began preparing the otter for examination by beginning anesthesia and attaching equipment to monitor heart rate and blood pressure throughout the procedure. They move quickly to make the process efficient and not prolong the time the patient is anesthetized. The students perform the physical exam with Dr. Katie Delke, intern, then Drs. Carpenter and Eshar confirm their findings. The students collect blood and administer fluids and vaccinations, all while the dentistry is being performed. The team then discusses the clinical findings,

which, fortunately for these two otters, were within normal limits.

More Than Routine

The team then moves on to the zoo's special cases. One patient examined was a magpie that had surgery a couple of weeks prior. The bird was found in its cage with an injured leg which Dr. Eshar amputated. Now the magpie is adapting to the use of only one leg and is expected to make a full recovery.



For emergency or very serious situations like the magpie, cases are rushed to the

Sunset Zoo magpie has adjusted to life with one leg after a successful surgery by Dr. David Eshar.

VHC for surgery or intensive care, but the transport adds risk. It is this type of scenario that has created the need for additional capabilities in the clinic at Sunset Zoo.

Plans to Expand

After the recent opening of Sunset Zoo's new education and administration building, the structure that housed the clinic was nearly vacant. With this opportunity to expand and renovate, Dr. Roger Fingland, director of the VHC, worked with the City of Manhattan and the Friends of the Sunset Zoo organization to secure funds for renovation of the clinic at Sunset Zoo. The renovated clinic will feature 10 state-of-the-art rooms for examinations, surgery, laboratory and pharmacy, animal holding and recovery, meeting space, and a student learning center.

The zoological medicine team will no longer need to spend hours each week packing and unpacking equipment and supplies for routine checks. Now, more time can be dedicated to the animals at Sunset Zoo and to the students

who gain valuable experience in this clinical rotation.

"This new clinic is probably the most exciting event I have experienced in my 22 years at the VHC."

- Dr. James Carpenter

"Our partnership with the Sunset Zoo is one example of how the VHC uses its expertise to help the community, while providing a valuable opportunity for training veterinary students, interns and residents in the field of zoological/wildlife medicine," Dr. Carpenter said. "This new

clinic is probably the most exciting event I have experienced in my 22 years at the VHC overseeing the veterinary care at the Sunset Zoo."

Construction on the clinic will begin in early 2013 with completion expected by June. ▼

VHC WISHLISTS

Dear Friend,

The VHC is making major renovations to the existing veterinary clinic at the Sunset Zoo, taking it from one room to 10 updated and modernized rooms. There is virtually no equipment maintained at the current facility. Properly equipping the clinic will improve the quality of animal care and enhance our teaching capabilities.

Dr. James Carpenter and Dr. David Eshar
Zoological Medicine Service

Zoological Medicine WishList

Portable Ultrasound Unit

Aids in the diagnosis of select medical conditions. Facilitates obtaining samples of internal organs. **\$16,500**

Heska Vet/IV fluid pump

Delivers fluids intravenously to animals of all sizes and weights at a calculated rate during surgery or intensive care. **\$1,000**

SurgiVet Advisor multiparameter monitor

Monitors ECG with heart rate, pulse oximeter, blood pressure. **\$7,800**

Heating pads

An essential component of any veterinary hospital. Used to provide supplemental heat to animals during and after surgery. **\$1,385**

Dental scaler and polisher

Used during annual health examinations to help prevent dental disease. **\$5,200**

Emergency Cart

Provides a central location for all the tools and drugs needed when an animal is having a life-threatening emergency. **\$500**

Surgivet anesthesia machine

Used to anesthetize patients as large as 300 pounds. **\$2,850**

Digital Thermometer

Permits a patient's temperature to be monitored continuously while anesthetized or in critical care. **\$375**

Intensive Care Unit (Lyon Pro-Care 27)

This intensive care unit is used to provide heat and oxygen to critically ill animals. **\$2,700**

Fluid warmer (I-warm Fluid Warmer)

Allows the administration of fluids that can be administered to a patient at or near their normal body temperature to help prevent hypothermia. **\$350**

Surgical/Procedure lift table

Essential and standard equipment for all veterinary hospitals. **\$2,500**

VHC/SSZ Clinic Equipment Fund

A fund for purchasing any of the aforementioned equipment as needed. **Any Amount**

Surgery table

Essential and standard equipment for all veterinary hospitals. **\$1,975**

Capnograph

Important instrument used in monitoring respiration in anesthetized patients. **\$1,500**

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Forever Young



Monkey & Bob

Bob's lifelong friend, Monkey, was laid to rest in December, just a few weeks after his milestone 40th birthday. Monkey lived through more than one can imagine for a horse. He was a young colt during the last manned mission to the moon in 1972, saw 11 presidential elections and was nearly twice the age of incoming veterinary students.

However, those who crossed his path will remember Monkey for more than his age.

Monkey taught Bob's four children the joys of horse ownership. "Any kid could walk in and out through his legs and Monkey didn't care," Bob says. "He was always a tame horse."

Numerous fourth-year students gained valuable experience in basic equine medicine by caring for Monkey. Bob used the VHC Field Service team for Monkey's routine senior care for a number of years. Monkey lived a long, healthy life according to Dr. Chris Blevins, assistant professor, equine field service.

Monkey's later years were spent comfortably with another equine companion in Clore's pasture overlooking the Flint Hills. "A friend called it the 'Assisted Living Equine Sanctuary,'" Bob jokes, since Monkey outlived two other aging stable mates.

Bob claimed there was nothing special about Monkey's routine that accounted for his longevity, but it is obvious the pair had a bond that kept them young at heart.

"They say a 40-year-old horse is an 'extreme senior,'" Bob said, but Bob knew Monkey was extreme long ago - an extremely rare and exceptional horse. ▽

It was a happy accident that brought Bob and Monkey together over 40 years ago. Bob Clore was a professor in the Department of Art at Kansas State University. His colleague was boarding her mare at a nearby stable when a stallion jumped the fence. As chance would have it, roughly 340 days later, there was an unexpected colt on the ground. Bob, who had participated in rodeo and owned a few pleasure horses, decided he was ready for another horse. He bought the colt for a mere \$50, already knowing he would name the young horse for an old friend. As a child, Bob had only seen a handful of horses in person before moving next door to a man who owned several. Bob quickly became enchanted with the animals, one in particular named Monkey. Bob's new colt, taking after his namesake, quickly became a unique and special horse to Bob.

A special lab, who is both the teacher's pet and class clown, battles cancer but can't help making friends and building relationships along the way.



Teacher's Pet



"You're lucky you get to go with Callie," says one student to her classmate, Trey, as he leaves his Smoky Valley High School classroom and meets an anxiously awaiting black lab.

Trey Sandbothe first met Callie about a year ago through a visit with her owner and school psychologist, Dr. Mary Jo Staab. "Callie is a great ice-breaker. It's a way to talk to kids without feeling threatening or intimidating," said Mary Jo. "She is the class clown. She wants to make everyone smile."

Callie is uniquely trained to work with students in schools. Mary Jo and her husband, Rick, got Callie from Canine Assistance Rehabilitation Education & Services or CARES, Inc. Prior to Callie, the Staabs had Trudy. Trudy was their first CARES dog and was intended to go to work with Rick who is President and CEO of an organization that provides career and housing options to disabled adults. However, Trudy responded better to children, so Mary Jo began taking her to work in schools. "I inherited her," Mary Jo laughs. When Trudy retired, the Staabs went back to CARES and picked Callie, who is actually Trudy's granddaughter.

Callie and Mary Jo began training together from the time Callie was eight-weeks-old. The pair had to pass a test to allow them to work together professionally. Once they passed, Callie began working with Mary Jo, traveling to multiple schools each week. Even with long days at work, Callie maintained her high energy personality.

Diagnosing Callie

That is why it came as a shock when the Staabs found their entertaining and lively Callie had a tumor that would need to be removed. The Staabs had noticed a lump on their seven-year-old's right side and their veterinarian confirmed it needed to be removed. Callie's tumor was removed, but within six weeks, the tumor had returned. "Callie was initially diagnosed with a grade 1 soft tissue sarcoma," Dr. Diana Burr, oncology resident, explained. Soft tissue sarcoma is a cancerous tumor that develops from the soft tissue of the body such as muscle, connective tissue, cartilage or fat. The grade 1 status meant it was unlikely that the cancer would spread to other parts of her body, but the Staabs wanted to do everything possible for Callie. Callie was family and the Staabs were going to go the distance in providing her the best care available.

The Staabs made the trip from their home in Hutchinson, Kansas to the VHC in October to discuss options. Radiographs were taken to ensure Callie's cancer had not spread and then the oncologists developed a treatment plan.

"Radiation is the treatment of choice," Dr. Burr said. With radiation, there was less than a 30 percent chance of reoccurrence in three years. The Staabs had three options: no treatment, chemotherapy which meant potentially taking

Dr. Diana Burr performs Callie's routine check-ups.



Photo: Rebecca Martineau

The linear accelerator delivers radiation therapy to small animals at the VHC.

medication for the rest of her life, or daily radiation that would last four weeks. Radiation was the ideal treatment and gave Callie the best chance of long-term remission, so it was an easy decision.

Fighting Back

The VHC uses a linear accelerator, which delivers high energy x-rays to the designated location on the patient, identical to the method used in humans. A CT scan is used as a model to construct a mold of the tumor. The mold is used with the linear accelerator allowing radiation through to cancerous tissue while minimizing the damage to normal tissue. Animals receiving radiation therapy are sedated so they do not move during treatment. It is critical that the radiation is delivered to precisely the same spot each time.

This method of treatment required Callie to receive radiation daily which meant Rick or Mary Jo made the two hour trip to drop her off and pick her up every Monday and Friday. It did not take long for Callie to feel right at home at the VHC. By the second week, she knew where her toys and cookies were in the oncology exam room and had quickly become the life of the party. "Callie became very close to Dr. Burr and also a senior student," said Mary Jo. Eventually, Rick noted, when they reached a certain point in Manhattan

every Monday morning Callie would realize where she was and get really excited.

Callie's positive attitude remained, but radiation did take its toll on her body. "The radiation therapy side effects from the area treated on Callie are similar to a bad sunburn and are often easily treated with topical sprays, warm compresses and pain medication," Dr. Burr said.

After that radiation reaction has healed, dogs may not grow their fur back or their fur may come back a different color in the area treated. Callie's black coat did come back white where the radiation was delivered. Mary Jo continued her work as a psychologist without Callie, which did not go unnoticed. "One student would always ask, 'Is she over her cancer yet?'" Mary Jo said.

Back to Work

After completing 20 radiation treatments, Callie only returns for regular recheck appointments. Each recheck includes a physical examination and radiographs to ensure that her tumor has not spread to her lungs. To date, Callie's radiographs have shown no evidence of spreading.

Callie is back to work in schools with students who value her warmth and silly antics. "Callie doesn't give anyone a chance not to like her," joked Mary Jo. Trey confirms this and says he enjoys her playfulness the most. "One day after Callie returned to school, a student walked by and asked 'Why does she have a big white spot?'" Mary Jo said another student became defensive on Callie's behalf saying "She has cancer, okay?" It was a learning opportunity for the students

"Our entire experience with the VHC has been nothing short of stellar."

- Rick Staab

Mary Jo worked with as well as their classmates. Trey said he had no idea dogs could have cancer – "or allergies!"

Rick and Mary Jo gave Callie the chance to receive a treatment that would prolong her life. The countless hours Rick and Mary Jo spent on the road and resources they dedicated to giving Callie the opportunity

to return to the job she loves, are perfect examples of the human-animal bond.

"Our entire experience with the VHC has been nothing short of stellar," Rick said. "It can't be overstated that having that facility, and much more importantly, people so compassionate and so committed to the best care possible is a resource beyond value for those who consider their pets as extensions of their family." ♡

Saying Goodbye

A TRIBUTE TO LOUIS BALL

It is with great sorrow the College of Veterinary Medicine family says goodbye to one of its own, Louis Ball.

To say Lou Ball impacted the VHC and CVM is an incredible understatement. What Lou and Norma Jane accomplished will impact the veterinary profession for lifetimes.

It started with a simple introduction in the small animal lobby of the VHC in the early '90s when Dr. Roger Fingland introduced himself to a couple whom he had noticed visiting on a regular basis. Every other week, to be accurate, Lou and Norma brought "the kids," Tiffany and Coco, in for a toenail trim. "Lou befriended technicians, clinicians and staff," Dr. Fingland explained. "He would bring in candy for birthdays and cards for holidays. He was an amazingly generous man," describing Lou's kindness, compassion and giving personality.

From that waiting room meeting grew a friendship that would turn into so much more. Lou and Norma Jane became important and active members of the VHC family. They were the proud owners of the first enrollees of the Perpetual Pet Care Program, which resulted from a conversation between Lou and Dr. Fingland.

Not only were their 60 years of loyalty to the VHC a gift, but the couple also started the most generous scholarship in the history of the CVM that will fund an entire year of veterinary school for one student who plans to pursue a career in academia. It was important to Lou that his gift be used to help students who will serve his passion for educating veterinarians.

The scholarship is funded by a Charitable Remainder Unitrust that allowed Lou to donate stock while bypassing



taxes on the capital gain. Through this arrangement, the proceeds from the sale of the stock were placed in an account that generated payments to Lou for the remainder of his life.

"He stands alone," says Dr. Fingland. "Lou taught many students what it means to love an animal and why it's important to do what they do." Lou began giving to the VHC when he and Norma Jane brought their first cat to our college in 1947 and his gifts will make a difference for generations. Lou will live on in all of us. ♡

This Winter

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DISCOVERING HOPE

Dr. Kenneth Harkin

Leptospirosis (lep•to•spi•ro•sis) is likely listed on your dog's vaccination record, but the disease and its research could have a broader impact. Dr. Kenneth Harkin, professor and head of the small animal medicine section at the VHC, has spent years researching and publishing findings on this particularly dangerous disease. His findings could lead to improved leptospirosis monitoring and protection.

Leptospirosis is a bacterial infection transmitted through contact with water contaminated with the organism or with an infected animal's urine. The leptospirosis bacteria has many distinct types, or serovars. Leptospirosis is a zoonotic disease, meaning it can be transferred from animals to humans, and is the most common zoonotic disease worldwide. Human symptoms are flu-like, while kidney failure is most common in infected dogs.

Discovering an improved leptospirosis testing method highlights Dr. Harkin's extensive research. This test, polymerase chain reaction (PCR), identifies the bacteria in urine, blood and tissues unlike standard blood tests which identify an antibody response to the organism. Current research suggests PCR may also be used to identify the infecting serovar of leptospirosis, which will lead to accurate development of vaccines and determining the origin of contamination. "The Kansas State Veterinary Diagnostic Laboratory (KSVDL) was the first to offer PCR testing for leptospirosis," Dr. Harkin said.

Some predict that new strains are popping up around the country, but Dr. Harkin's research shows these claims are based on less accurate testing methods. "We've seen the same serovars around the country from all of the samples." Blood tests are only 40-50% accurate, often incorrectly identifying infecting serovars. Using PCR, Dr. Harkin can identify the infecting serovar with 100% accuracy.

Previous research shows animals with access to water sources, such as lakes and ponds, hold a higher risk of contracting leptospirosis. Dr. Harkin further discovered that dogs near parks and forests are at higher risk, as well as pets in impoverished areas where rodents that easily transmit leptospirosis are more common.

Recent studies suggest bats may carry leptospirosis. Dr. Harkin and KSVDL are testing bats from Kansas and Nebraska. "If bats turn out to be a carrier, that's a different level of transmission. Bats have a large territory and can

Accurate Results



Photo: Rebecca Martineau

Dr. Kenneth Harkin
with Ted and Max

spread the disease further through urination." Dr. Harkin's research suggests bats are not leptospirosis carriers.

Dr. Harkin stresses the need to maintain a constant vigilance for leptospirosis, looking for changes in serovars and identifying outbreaks. "People need to be aware, and the question remains whether this is going to be as significant an issue for people in the United States as it is in other parts of the world," Dr. Harkin explains. "This is not a reportable disease in the U.S., so we don't have detailed information on cases in humans. We envision building a broader understanding, potentially being able to provide up-to-date information for people on where we are seeing outbreaks and other important information."

"Patients with diseases help us understand the disease better, and in the process of routinely taking care of these patients, treating them and returning them back to health, we often gain information that helps other patients down the line," Dr. Harkin says.

Dr. Harkin resides in Manhattan with his wife, Katie, children, Daniel and Jillian, two Yorkshire Terriers, Ted and Max and one 16-year-old cat, Skye. ▼

REFERRING VETERINARIAN

Building A Reputation

Dr. Stephanie Weckel



Dr. Stephanie Weckel
with Oliver

"It was a long road to veterinary medicine," Dr. Stephanie Weckel says after recalling her varied career interests. After Dr. Weckel reevaluated her career in a laboratory and sales position on the east coast, she strongly considered a master's in landscape architecture. Dr. Weckel instead decided to pursue a Doctor of Veterinary Medicine degree. She took her strong science background and her love for saving animals, and moved to Manhattan to start her path toward a veterinary career.

Dr. Weckel worked in the Kansas State Veterinary Diagnostic Laboratory for two years before veterinary school and continued to work there until her clinical rotations her fourth year. After graduation, she moved to Las Vegas to immerse herself in the fast-paced, long-hour extremes of the profession. "I did nothing but surgery for the first 30 days," said Dr. Weckel of her one-year internship. After that year, she was proficient in surgeries and had developed her own interests in ophthalmology and dermatology, so she moved to Kansas City to practice in the corporate veterinary world.

After five years, it was time for Dr. Weckel to return to Salina to be close to family. She went to work building

Weckel Pet Care from the ground up. "I would not recommend it," she laughed. "We were extremely lucky. We ramped up very quickly." It was not luck, but Dr. Weckel's raw determination to provide top-notch client service, medicine and surgery. Weckel Pet Care operates on the philosophy of doing what is best for each animal. "We follow through on every single case and that is very time consuming," Dr. Weckel explained. "We don't rush through cases and we do a lot of diagnostics. I couldn't practice to the standards we established for ourselves without an incredible and very caring team! Our clients appreciate our entire team and every member contributes to our philosophy."

Part-time associate, Dr. Callie Rost, is the lead instructor for the Brown Mackie Veterinary Technician program. Many students from that program and area high schools spend time in the clinic shadowing, helping and learning what it takes to be a veterinarian. "It's really valuable for students to come in and see what we do," Dr. Weckel said.

Veterinarians gain reputations as hard-working and caring individuals. In addition, the surrounding community also knows Weckel Pet Care for their rescue work. "Rescue work has really defined what we do," Dr. Weckel said. "When people think of us as a whole, they know we are proactive in rescuing pets." One day, she arrived at the office to find an abandoned dog tied to her front fence. Dr. Weckel's pets are all rescues, including her long haired dachshund, Twitter. Dr. Weckel worked with the VHC's Dr. Kenneth Harkin to diagnose and treat Twitter's auto-immune disease. Now Twitter is a happy, healthy companion in Dr. Weckel's home.

Another reason Dr. Weckel believes her clinic is successful is the team's willingness to give every pet the care they need. "If we have exhausted possibilities, we have no qualms about referring. If your pet comes in, we are going to do our very best, and if we can't solve the problem, we will send it somewhere that can," she said. "I think our clients really appreciate [VHC] and the fact that we are going to be actively referring if it comes down to needing that."

Dr. Weckel still has many, varied interests. She is interested in furthering her education in alternative therapies. In the next five years, Dr. Weckel plans to expand her services while continuing to provide excellent client and patient care in Salina. ▼



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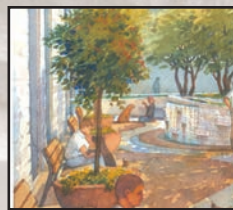
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