

# AnimalLIFE

Spring 2014



Veterinary Health Center

AT KANSAS STATE UNIVERSITY

TO DISCOVER. TO TEACH. TO HEAL.

## FEATURING

Two dogs share unique bond

Doctor arrives just in time

Surgery for servicewoman's dog

Pygmy goat suffers deadly attack

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

In this publication, we often bring you VHC stories with happy endings. This is a place of miracles, but as some of us know too well, the VHC is also a place of hard-fought battles — and sometimes of goodbyes. It's hard to find



Kristin Loving, with Ebby and Jordy.

any positive in the loss of loved ones, but as Lucky's story on page 16 shows us, there is often a silver lining — a light of hope that can be passed on. As I listened to Lucky's owners, I heard the love and true happiness they shared with Lucky and how grateful they are that his legacy lives. Seeing the miracle they made possible is nothing short of inspiring.

I am constantly reminded of what an honor it is to share these stories with you. Pet owners like you who show such commitment and sacrifice are truly special. It is not an easy task to write these stories and capture the depth of the love, commitment and character in our patients, families and doctors, but I am grateful for the opportunity.

I am inspired every time I meet one of our brave families — both pets and people. I always look forward to hearing untold stories of the VHC. If you have one to share, please send it to me at [lovingk@vet.ksu.edu](mailto:lovingk@vet.ksu.edu).

Best Wishes,

*Kristin Loving*

## AnimaLIFE

VETERINARY HEALTH CENTER AT KANSAS STATE UNIVERSITY

Spring 2014

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### Veterinary Health Center

AT KANSAS STATE UNIVERSITY

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Cover: Dr. Thomason and Josie, pg 10.



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One of the greatest rewards of my position is seeing the veterinary profession continually grow, improve and be pushed to new heights by clinicians in the Veterinary Health Center. Watching talented surgeons like Drs. Durant and Slack perform delicate and cutting-edge procedures like those described in the stories in this issue of *AnimalLIFE* is truly inspiring. Immensely talented clinical researchers like Dr. Greg Grauer make discoveries that improve the treatment of serious animal and human diseases. Our clinicians, house officers and veterinary students brighten the future for veterinary medicine every day. And most importantly, they save lives.

Veterinary medicine is constantly evolving, and we strive to stay ahead of the change. We continually improve VHC facilities and equipment so our clinicians can provide the best available medicine for your pets and livestock and the best possible education for our students. In the last issue, we shared news of the fundraiser for an equine CT table and we are happy to report that it will be installed and operational this spring! Our next big project will be construction of a state-of-the-art Equine Performance Testing Center. We look forward to sharing this journey with you in future issues and encourage you to support our efforts to provide exceptional facilities for treatment of our equine patients.

All these things are possible because of your continued support and loyalty to the VHC. Thank you for supporting our hospital and thank you for caring about animals.

Warmly,

Roger B. Fingland, DVM, MBA, DACVS

Director, Veterinary Health Center  
Executive Associate Dean, College of Veterinary Medicine



Photo: KSU Photo Services



For Dr. Emily Klocke, every patient is important but there is even more to being a small animal soft tissue surgeon at the VHC than saving a beloved pet. In addition to her role as an accomplished surgeon, Dr. Klocke also finds her role as an educator and good role model to future veterinary professionals of great importance.

Dr. Klocke, clinical associate professor, attributes her choice of career path to the influence of mentors early in her life. Her first veterinary mentor was a young veterinarian in the clinic where Emily worked before veterinary school, who took the time to explain and teach as she worked with her. “That rubbed off on me. She didn’t have to take time to teach me, as well, but it made it really fun,” Dr. Klocke said.

During veterinary school at Michigan State University, it was the interns and residents who, while they themselves were new veterinarians, amazed Dr. Klocke with their ability to handle difficult cases. Dr. Klocke was inspired to pursue an internship to gain additional veterinary training. During her internship, she found her calling in the surgery rotation. “As an intern, we rotated through every specialty, and I enjoyed surgery the most. I became the type of person who wanted to figure out the problem and be able to definitively resolve it. Surgery provided that kind of experience,” Dr. Klocke said.

Now, Dr. Klocke enjoys inspiring students the same way she was inspired. “A couple of faculty members were wonderful

role models, not just teachers, but excellent people,” Dr. Klocke said of her mentors at Purdue University where she specialized and completed a surgical residency. “Their example of being a good citizen and a good role model was really attractive to me. They taught me how important it was to consider the student and to always be sympathetic to someone who’s trying to learn. The effect we have on students can really make a difference in their abilities and in their experiences.”

Currently, students begin hands-on surgical training in the third year of veterinary school and assist with surgeries in the fourth year rotations. “To be a good surgeon, you first have to be a good assistant surgeon,” Dr. Klocke said. The techniques they learn while assisting are important to the care of their future clients. They need to be able to tell their clients about the surgical options they have, the risks associated with each surgery and be able to help their clients understand and feel comfortable with decisions they face.

Assisting is important, but there is no alternative to the hands-on surgery experience. Her goal is to increase students’ exposure to surgery. Dr. Klocke added an elective cadaver-based surgery training rotation during the fourth year that teaches students common surgical procedures during a two-week rotation. There are only eight positions available each year due to the resources required to teach the class. “It would be nice to expand it,” Dr. Klocke said. “The great addition of Dr. April Durant, my counterpart in soft tissue surgery, has improved our ability to provide more student experience.”

“The students have really enjoyed it,” Dr. Klocke said. “They come out with more confidence. I’ve seen their skills improve dramatically.” Dr. Klocke also hopes to offer an elective for second-year students to concentrate on surgical instrument handling, sterile technique, and suturing.

Dr. Klocke also trains the surgical residents, veterinarians accepted into an intense, three-year training program where the end goal is achieving diplomate status in the American College of Veterinary Surgeons. “To see the growth in these outstanding individuals over a three-year residency go from basic skill to high level skill and knowledge and to see them develop into experienced surgeons is very rewarding,” Dr. Klocke said of teaching residents.

Outside of the surgery suites and classrooms, Dr. Klocke spends time with her greatest passions — two sons and a husband, raising cattle and crops on the family farm.

# Battle for Batista

Batista's family must make a difficult decision to treat his worsening condition.

It is hard to leave a pet behind when life leads you away along a new path. Kirstan Buckle's new path took her to serve her country when she enlisted in the United States Air Force. She had grown up with outdoor, hunting dogs and always had hoped for an indoor dog. Kirstan's mom, Karla, told her she could finally have a Miniature Yorkshire Terrier, and it took Kirstan no time to find Batista. They picked him up when he was 8-weeks-old, weighing just a pound, fitting snugly into the palm of your hand as well as the Buckles family's hearts.

## The Early Signs

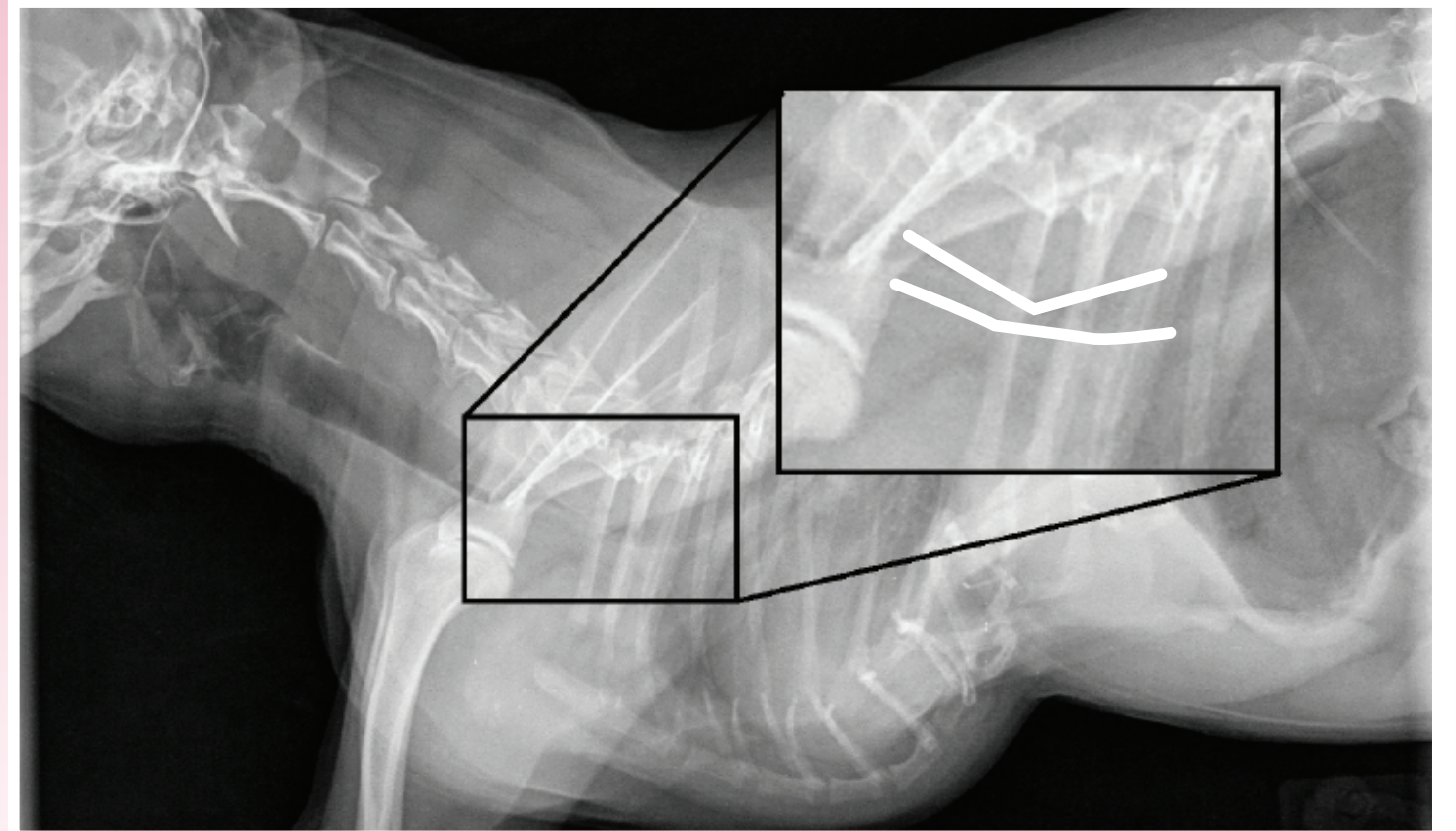
Kirstan's decision after high school to enlist in the Air Force first took her to Texas for training and she had to leave Batista behind with her family. It was during this time the Buckles noticed the now 4-year-old Batista's breathing becoming progressively labored. The spunky dog's breathing had always been challenged and with every year it seemed to become more labored. They had to keep him calm, away from visitors and other exciting situations. "He loved ice pops," Leo Buckles, Kirstan's father, said. "We would give him an ice pop to lick, and it would calm him down when he got too excited."

"We first thought it was allergies," Karla said. Their primary care veterinarian in St. Joseph, Mo. treated him for allergies. "We had a gallon-sized plastic bag full of medications to treat Batista, but made no progress," Karla said. "One day Batista locked up and began to turn blue." During an emergency trip to their veterinarian, radiographs showed a severe collapse of the trachea the doctor recommended



that Buckles seek further help from a specialist, so they made the trip to the VHC.

"Batista doesn't like car rides," Karla said. Batista got so worked up on the way to Manhattan he turned blue again, locked up and could not breathe. "The VHC got us right in. They put him in an oxygen tent and conducted further testing," Karla said.



Batista's radiographs show a narrowing of the trachea at the base of his neck indicating a tracheal collapse.

The VHC internal medicine service initially took Batista for testing which included radiographs and fluoroscopy to further investigate Batista's condition. Fluoroscopy gives a live, moving radiograph of what is happening inside the patient. The radiographs showed a segment of Batista's trachea was deviating upwards into the airway and fluoroscopy confirmed the region of collapse did not change during Batista's breathing. This type of deviation was not the typical appearance for tracheal collapse, in which the top of the trachea sags downwards into the airway.

Because of the abnormal appearance of the trachea, the next step for Dr. Kenneth Harkin, professor and section head of internal medicine, was to directly visualize the inside of the trachea with an endoscope. The endoscopy procedure confirmed a malformation in the region of the trachea where the neck meets the chest. With the endoscope, Dr. Harkin could see that the bottom of the trachea was deviated into the airway, creating a "W" shape. This abnormal shape essentially blocked air from flowing to the lungs.

Traditionally, tracheal collapse results from weakening of the many cartilages that form the trachea. With time, the cartilages, which are "C" shaped, become so weak they flatten, and the top of the trachea sags into the airway. Batista's condition was different because the cartilages were malformed, possibly a congenital abnormality that worsened with time.

"With Batista, we found certain segments of the tracheal rings looked abnormal. It didn't look like the cartilage was healthy because it was soft and discolored," Dr. April Durant, assistant clinical professor, of soft tissue surgery, said. "My best inclination is that he either started out with a normal trachea or had a congenital issue with the cartilage which became weaker and weaker as he aged." She compared the tracheal rings to a paper clip when being bent back and forth until it eventually weakens or breaks.

Tracheal collapse is a condition in small dogs that can often be a problem. The initial goal is to medically manage it as long as possible. Medication never cures the condition, but

many animals can safely breathe and function with a good quality of life. When medication no longer sufficiently helps the patient, surgery is the best option. Most dogs respond to medication, but after a month of trying this method with Batista, there was no improvement in his condition.

### Rings of Hope

The options for Batista were limited. Surgery was necessary in order for Batista's condition to improve and lessen his chance for a potentially fatal episode. The surgical options included a stent placed inside of the trachea or an external ring made of polypropylene. Batista's collapse, however, was different from those patients where the prosthetic ring is normally used because the bottom of Batista's ring caved up, instead of the top falling in, forming a teardrop shape.

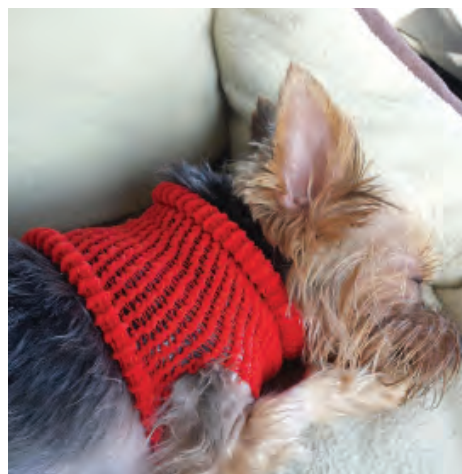
"Based on the risk assessment, we believed a stent might not be strong enough to push open the collapse. I thought the better option was a ring to provide rigid external support," Dr. Durant said. "There is always the option that if it is progressive, we could add an internal stent in the future."

Dr. Durant gave the Buckles this option and explained the pros and cons of moving forward with the surgery. "They understood the risks and potential for complications," she said. "They just wanted to try something that could save Batista."

"The surgery we performed on Batista was precise because there are a lot of nerves and blood vessels near the trachea, so your

dissection has to be very careful," Dr. Durant said. "Once you get the ring in place, you suture the ring around the trachea. It is a very delicate procedure."

The end result was an almost 2-inch incision on Batista's short body, with five



Batista recovers from surgery on the ride home from the VHC.

rings placed around the trachea. The surgery was successful. Recovery meant limited exercise for Batista and avoiding activity or stress that would cause heavy breathing or panting.

"If we had known the outcome of this surgery would be so successful, we would have done it a lot sooner," Leo said. "We were concerned with the risks of the surgery, but we are so happy with the outcome."

Dr. Durant expects Batista's surgery to hold for the rest of his life. "It's possible he may develop additional lesions or a true collapse instead of just a malformation," she said. In that case, an additional surgery would be necessary to stabilize those areas, but the current location of concern should hold for the rest of his life.

The Buckles brought Batista back for a recheck to evaluate the inside of the trachea again with endoscopy. "The sutures holding the external ring to the trachea can be exposed on the inside of the trachea and can cause a reaction. This type of reaction can require medications to prevent coughing," Dr. Durant said. "It looked beautiful. Not a completely normal shape, but more normal for him."

"He is totally a different dog. He could only take a few stairs at a time before he would get out of breath. Now he can go up and down stairs with no problem," Karla said. "Dr. Durant said if we would have waited a couple of weeks, he wouldn't be here."

Kirstan was able to come back during Batista's recovery stage and could already tell a big difference in his ability to breathe. Her job has since taken her to Alaska, but she can rest assured that Batista is in better health and has wonderful support around him including her immediate family and now, her VHC family. ♡

"They understood the risks and potential for complications. They just wanted to try something that could save Batista."

- Dr. April Durant

# 1943-2014

## REMEMBERING

# Mark Chapman

Mark Chapman left an extensive legacy, including a legacy at Kansas State University and a legacy at the Veterinary Health Center. Mark, of Cat Spring, Texas, possessed a passionately generous spirit that his wife, Cheryl Mellenthin shares and will carry on, continuing to enrich the lives of others for years to come.

Mark and Cheryl once rescued a horse from deplorable conditions. The malnourished animal settled into a new home with them and became known as Lucky. Cheryl nursed Lucky back to health and he became a cherished part of the family. Lucky had severe cataracts for which Mark and Cheryl sought treatment. After visiting with the VHC, they found that Lucky was not a candidate for surgery to remove the cataracts. However, after hearing the VHC did not have the type of equipment necessary to perform this type of surgery on a large animal, Mark and Cheryl made the generous decision to donate the funds for a state-of-of-the-art phacoemulsification unit. This unit has become critical to the eye care of hundreds of animals at the VHC used on both large and small animals.

Mark and Cheryl's most recent contribution has forever changed the face of the VHC. Chapman-Mellenthin Plaza is a unique, living tribute to those who love animals and the animals they love. With their generosity, the plaza featuring flowering trees, stone benches and a waterfall provides clients, patients, students and faculty a place to enjoy and reflect.



Mark contributed greatly to the VHC and a number of other causes at Kansas State University, but it was the spirit in which he gave and his enthusiasm that lives on as an inspiration to all of us. Mark's quiet presence and genuine care for the Kansas State family was remarkable.

We greatly cherish our time with Mark and the many ways he touched the lives of the VHC family. ♡

"A LIFE IS NOT IMPORTANT EXCEPT IN THE IMPACT IT HAS ON OTHER LIVES."

- JACKIE ROBINSON

# AGAINST THE ODDS



## *Clinicians rush to save a pygmy goat fighting for her life.*

Below: Sara Ku, Ruth Hester, both fourth-year students, and Dr. Gretchen Grissett examine Daisy at her first recheck.

When Daisy arrived at the VHC, her dismal condition forced the VHC team into high gear trying to save her life.

The 2-year-old pygmy goat had been violently attacked and suffered severe wounds on her neck. Immediately, Dr. Nora Schrag, clinical assistant professor of agricultural practices, and Dr. Gretchen Grissett, ag practices resident, began to stabilize the goat and clean the wounds. Daisy was found by a friend at Linda Sneegas' home and rushed to their local veterinarian in Eudora. "Our veterinarian said if we wanted to save her, we had to take her to the VHC," Linda said.

There was no question Linda would do everything she could to save the pygmy goat. Daisy was a very special goat; a birthday gift from Linda's son, Justin, who had passed away just a few months earlier.

### Deeper Wounds

The first and biggest concern was Daisy's inability to control her head movement or stand up. The nature of her injuries suggested that an animal had grabbed Daisy by the neck and

shook her. Whenever Daisy tried to move, her head flopped back and she showed severe pain. Dr. Schrag bandaged her neck to stabilize it and decrease her pain. With this bandage she was able to stand and walk by morning.

Radiographs showed fractures on the tips of the cervical vertebrae and subluxation of one vertebra, causing Daisy's extreme pain, and there was substantial trauma to the muscles. Blood work showed Daisy's creatinine kinase levels were very high. Creatinine kinase, or CK, is a muscle enzyme that is often elevated with muscular trauma. "The normal range is around 100-300 and Daisy's level was more than 800,000. I had never seen an animal with levels that high survive," said Dr. Grissett. This extreme elevation in enzymes is detrimental to some organs, particularly to the kidneys.

Dr. Grissett administered intravenous fluids to combat the elevated enzyme levels. "It was touch and go for awhile," she said. Daisy was in severe pain due to her injuries and fighting for her life battling the enzyme count before it caused irreversible renal failure."

Daisy was treated through another night at the VHC, and the morning brought welcome changes. Her CK values dropped to 97,000, but her kidney values were still elevated, which is common with this degree of injury. The team constructed a brace using metal rods on both sides of her neck to stabilize the movement of Daisy's neck and protect her from further damage and pain.

"Dr. Grissett's specialty training and experience allowed her to recognize the severity of the situation, understand the importance of aggressive therapy, and monitor critical parameters to have any chance at saving Daisy," said Dr. Matt Miesner, clinical associate professor of agricultural practices. "She did an outstanding job."

### Slow and Steady

On the fourth day, CK levels improved again, dropping to 4,500, however kidney values remained at a concerning

level. Daisy stayed at the VHC over the weekend continuing to receive fluids and close observation.

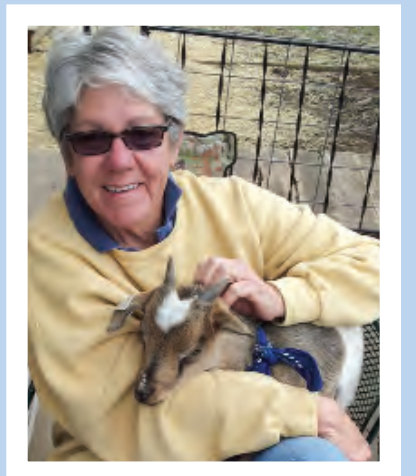
After an uneventful weekend and slow progress, Daisy's CK levels returned to normal and her slightly elevated kidney values indicated she might have permanent mild kidney damage. Daisy finally made enough progress that Linda could take her home.

Linda, admittedly a little squeamish about medical care, learned to provide Daisy's care at home which included wound care and two antibiotic injections each day. She built a pen on the back porch where it was warm and Daisy could see her friends: a Shetland pony, a miniature donkey, the dogs and Linda's grandchildren. The cold weather forced Linda to move Daisy to the garage where she could use heat lamps to keep Daisy warm. "We couldn't wait for warm weather so she can visit her best friend, Henry, the Shetland pony," Linda said. "She's going to be a little spoiled."

Daisy came back to the VHC after two weeks and was markedly improved. Dr. Grissett was able to remove the metal rods holding her neck straight and reduce the size of the brace. Daisy has some permanent damage to her kidneys, but she compensates well.

"The VHC ag practices team was absolutely amazing," Linda said. "The people were so kind and easy to talk to. They really went the extra mile."

"She's a miracle goat," Dr. Grissett said. Daisy certainly was a big miracle in a tiny package that overcame great odds. ▼



Linda holds Daisy prior to the accident which left Daisy in critical condition.



# Not a Moment Too Soon

*Dr. Thomason joins the VHC Cardiology Service just in time.*



“My wife is a big believer in fate,” said Steve Eno. Perhaps it was fate when Steve and Cheryl came across Josie, a 12-year-old Gordon setter, at a shelter was after she was surrendered by her owner. Josie’s previous owner could no longer keep up with the costs of keeping a dog, and for Josie, that meant finding a new home. Whether or not it was fate, there was no denying that Josie had found her new home with the Enos.

“We just connected right away,” Steve said. Josie was almost 100 percent deaf and had been treated for heartworms prior to coming home with the Enos. The parasites had caused such severe damage that even after treatment Josie had developed a heart murmur. Josie’s murmur causes a rapid, irregular beat that is evident just from holding a hand to her chest. The murmur means Josie’s heart must work much harder to keep everything in balance.

About a year and a half after bringing her into their lives, Josie began having trouble walking. “She couldn’t walk 50 feet without collapsing,” said Cheryl. Josie also began throwing up water and experiencing labored breathing in the evening.

Steve and Cheryl took her to their local veterinarian near Lincoln, Neb. Thoracic radiographs showed Josie’s heart was extremely enlarged. Her veterinarian recommended a trip to the VHC.

## First Look

Dr. Justin Thomason, assistant professor of cardiology, had just joined the VHC cardiology service. He took Steve’s call on his first day at the VHC. “Josie was experiencing extreme weakness and lethargy. She was in congestive heart failure and had fluid in the lungs diagnosed by the referring veterinarian,” Dr. Thomason

said. “When Steve called, he was most interested in improving and maintaining Josie’s quality of life.”

Steve brought Josie down for her first appointment where Dr. Thomason and the cardiology team performed tests that confirmed a diagnosis of myxomatous valvular disease, a degeneration of heart valves that is very common in older animals. However, her test results also showed elevated kidney enzymes; a condition that would cause challenges in treating the valve disease.

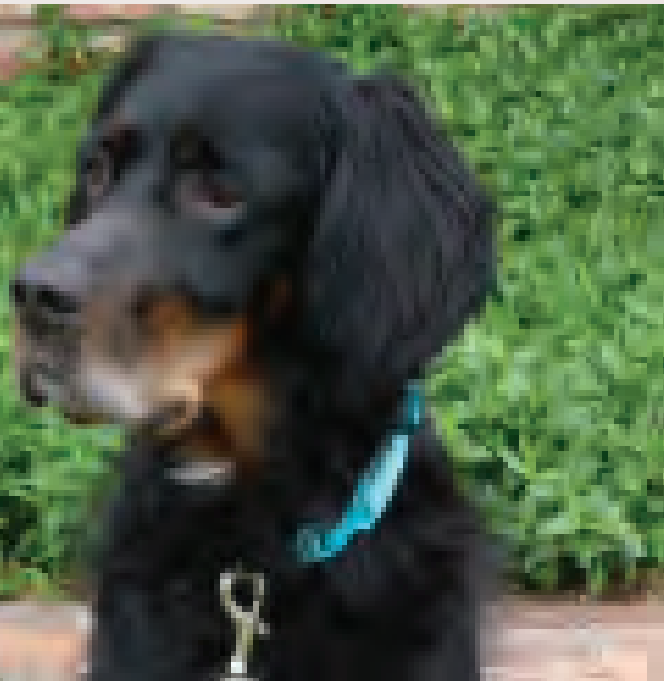
“We, as the cardiology service, treat Josie as one of our own pets. The recommendations I make for Steve and Josie are what we would do with our own pets.”

- Dr. Justin Thomason

“Josie’s kidney function was not as good as we had hoped, which made treatment difficult,” Dr. Thomason said. The usual course of treatment can easily cause further damage to the kidneys. “We developed a protocol that would help the heart without aggravating the kidney disease,” Dr. Thomason said. Using a combination of drugs designed to minimize damage to the kidneys while improving the condition of her heart, they were able to stabilize her condition. Josie’s kidney values improved and her heart condition improved. Now she was ready to experience a quality of life she had not seen in a long time.

“She gets better every day,” Cheryl said. Josie takes medication twice a day, which she gladly accepts wrapped up in Velveeta cheese. Steve and Cheryl take her on four walks a day where she enjoys running and playing with their other dog, Cora, a 10-year-old setter.

Josie acts like a puppy since her treatment at the VHC. Bottom left: Christy Coyle, cardiology technician, and a senior veterinary student examines Josie. Bottom right: Christy checks Josie's blood pressure.



There is no cure for this heart valve disease in veterinary medicine yet. Once the condition is properly managed, the goal is to provide good quality of life for as long as possible.

### Team Effort

Josie comes back for rechecks every three months. "We look for congestion, check the lungs to make sure there is no fluid accumulation and monitor the kidneys as well, so that does not become an issue," Dr. Thomason said. Josie's rechecks have been quite positive and she continues to put on the weight she lost in earlier stages of the disease.

Dr. Thomason is pleased with Josie's progress. "With the condition of her kidneys, I was concerned. A lot of her improvement resulted from Steve and Cheryl's dedication. They return for recheck appointments like they should. They monitor respiratory rate and stay on top of it. When there's an issue, they call and we make adjustments over the phone if necessary," Dr. Thomason said.

Steve and Cheryl were committed to Josie's care. "Our goal was to honor that. We, as the cardiology service, treat Josie as one of our own pets. The recommendations I make for Josie are what we would do with our own pets," Dr. Thomason said.

"She acts like a puppy again," Steve said. "I cannot begin to say enough good things about Dr. Thomason. He was very professional, kind and understanding of what I was going through. He is always available to take my phone calls and has even made follow up calls to see how she is doing."

Just like the day they first saw Josie in the shelter, perhaps it was fate that Steve called in dire need of an answer for Josie on Dr. Thomason's first day at the VHC. Impeccable timing along with dedicated owners and clinicians allowed Josie to return to the active life she loves with Steve, Cheryl and Cora. ♡

### Dear Friend,

Restarting the cardiology service at the VHC is an exciting adventure and we are thrilled to offer these services once again to the Midwest.

We have made it our mission to make customer service a priority and treat your pet as we would our own. Just like Josie became a part of our family, we look forward to adding your pet as well. The equipment below will allow us to provide the best care possible while also providing a superior education to future veterinarians.

For more information on assisting us with this WishList, please contact Kristin Loving at 785.532.4046 or mail your donation to VHC Development, 103 Trotter Hall, Manhattan, KS 66506.

Dr. Justin Thomason  
Assistant Professor, Cardiology

## Internal Medicine *WishList*

### Cardiology Fund

A fund for purchasing any of the following equipment and contributing to research and teaching needs. **Any Amount**

### ECG Machine

To provide improved monitoring and cardiac care. **\$4,000**

### Catheter Cart

Essential equipment for surgical procedures. **\$4,000**

### Lead Aprons

Necessary for safety of faculty, staff and students during imaging. **\$1,500**

### Smart Board

An interactive board for teaching students that enhances the atmosphere of learning. **\$8,000**

### Learning Tools

Enhance the student experience with an iPad, stethoscope library, cardiology textbooks and funds for student teaching. **\$3,500**

### Printer

Dedicated printer for echocardiograph machine to print reports. **\$300**



# Life is Full of *Second Chances*

A second chance at surgery is made possible by a donor's sacrifice and a clinician's determination.



Watch Vida's story on YouTube.

[youtube.com/KSUCVM](https://youtube.com/KSUCVM) "Novel Surgery at the VHC Saves Vida's Vision"

Vida is the Spanish word for "life", which is exactly what Jorinda Juno gave an unwanted Rottweiler puppy. "The breeder thought there was something wrong with the puppy," said Jorinda. "She was going to be put to sleep." After further contemplation, Jorinda decided she had to take a chance on the puppy. Jorinda took the puppy home and appropriately named her Vida.

Jorinda trained Vida in agility and rally and in both she excelled. During one agility practice in late 2011, Vida fell off of an obstacle and after inspecting her for injuries, Jorinda noticed a blood blister in the sclera of her eye. After a visit to her local veterinarian, Jorinda treated Vida with eye drops. The medication did not improve Vida's condition and the local veterinarian recommended Jorinda bring Vida to the Veterinary Health Center.

## Diagnosing Vida

Vida was diagnosed with an epibulbar melanoma, a tumor of the external surface of the eye, and uveitis, a term for inflammation inside the eye. The inflammation had to be treated before removal of the melanoma could be pursued. Melanomas are typically benign, but thoracic radiographs were performed to ensure it had not spread to the lungs.

Once the inflammation was resolved, a superficial keratectomy was performed by a VHC ophthalmologist. In a superficial keratectomy, a portion of the cornea, the clear surface of the eye, affected with melanoma is removed. The melanoma was deeper into the cornea than anticipated and could not be removed completely with surgery. A cryosurgery, or freezing, was performed to slow and hopefully prevent regrowth of the tumor.

Vida returned home after a successful surgery and recovery. Jorinda continued to monitor Vida's eye for regrowth of the melanoma. At times over the next year, she suspected regrowth, but her fears were confirmed when she ran into a friend who commented that Vida's eye, indeed, looked as if the melanoma had developed again.

In August of 2013, Jorinda and Vida returned to the VHC to meet with Dr. Jessica Slack, assistant professor of ophthalmology.

"This type of tumor is not usually life-threatening. One option was to remove the eye, however we wanted to avoid that since the rest of the eye was healthy. Regrowth had occurred after a conservative surgery, so we decided to recommend an aggressive treatment and give it our all," said Dr. Slack.

The surgery Dr. Slack suggested, a sclerokeratoplasty, required the affected part of the eye be removed and the tissue replaced with the same tissue from a donor eye. This is a very uncommon surgery that had never before been attempted at the VHC. In addition to the advanced skill level and complex preparation needed for the procedure, there also had to be an available donor.

Dr. Lindsey Blevins, assistant professor of the Pet Health Center, contacted Dr. Slack after the Bipes family donated their dog, Lucky to the VHC after euthanasia. Lucky was a perfect candidate to donate the portion of the eye that Vida needed. (See Lucky's story on the next page!)

## Completing the Puzzle

Dr. Slack called Jorinda to let her know there was a donor available and she could move forward with the procedure. Jorinda and Vida returned to the VHC hopeful this would be the solution to Vida's serious health challenge.

During surgery the upper half of the cornea and sclera, the white part of the eye were removed. The donor tissue was trimmed to fit the defect and sutured in place to complete the procedure. The procedure took several long, intense hours.



Dr. Jane Ashley Stuckey performs a recheck of Vida's eye.

Vida spent a week in the hospital recovering. After Vida was released from the hospital, the care Jorinda provided at home became instrumental to the success of Vida's recovery. Jorinda faithfully administered eye drops, even waking up multiple times each night for the first few weeks. She has since made several 4-hour trips from Garden City to the VHC in Manhattan to bring Vida back for evaluations. Dr. Slack is pleased with Vida's progress.

"Vida had sight before and after the surgery. The procedure was to prevent the tumor from growing back and to save her sight in the future," Dr. Slack explained.

### The Important Donor

Fourth-year student Tera Barnhardt was with Lucky and the Bipes in his final moments. "Five months later, I was able to see Vida for a check-up appointment while I was on the ophthalmology rotation," Tera said. "I was so excited to see Vida's progress and to appreciate the difference the Bipes' donation had made for another patient. I could see the gratitude in Ms. Juno's eyes. She was so very thankful for the work being done at the VHC. Days like these, seeing the full story of Lucky and Vida unfold, are the days that make four years' of studying worth it."

You never know how one's life will affect another. Lucky lived his life to the fullest and even after he was gone, he continued to give. Vida's sight and quality life has been saved by a brave team of ophthalmologists, impeccably executing a rare surgery, and a fellow canine whose loving family made a courageous decision to share his legacy in the hopes he could help others. ♡

Dr. Jane Ashley Stuckey and Dr. Jessica Slack are thrilled with the progress of Vida's recovery after her check-up in February.



# A Lucky DOG

In describing Lucky, Amy Bipes only had to say, "Watch the movie Marley & Me". Over his 14 years, Lucky had taken part in his share of mischief that paralleled many of the tricks of the legendary Marley. "He was the best-worst dog ever," Amy said.

Lucky lived life to the fullest, and when he was done, he shared a bit of his life with another loyal companion in need.

As a puppy, the timid golden retriever-labrador mix found his way home with Amy's son, Michael, who volunteered at a local shelter in Topeka. "My husband said to call him Lucky, because he was lucky to have a home," Amy said of her husband who was not yet excited about adopting

another pet. "It turns out that we were the lucky ones," she said.

Previously, the Bipes owned small breed dogs and, before long, they found themselves the owner of an 80-pound ball of nuisance and love as Lucky grew. "It took Mom and Dad a while to warm up to him after a few of the things he had done," Michael said.

"I kept thinking that he would grow out of that," Amy said. They repeated that thought over many years according to Michael, as they listed the items they had lost to Lucky's chewing: a bedpost, a box of tulip bulbs, a child gate and many more.

In typical Marley fashion, Lucky was even kicked out of obedience class. "We took him a couple of times," Michael said. "But then we were told he was corrupting the class and they asked him to come back in a year or two when he was a little older and less disrupting." Before he was kicked out, Lucky did manage to learn the trick "bang" in which he fell over and played dead at the point of a finger.

"He had a very intense character — very loud personality," Michael said. This was perhaps no better displayed than during a thunderstorm, when Lucky adamantly tried to convince his family to follow him downstairs to the basement. Finally, Lucky dramatically flopped down on the floor and let out an exasperated sigh. Later that night, the family learned a tornado had passed through the area. "I told my family, Next time, we better listen to the dog," Amy said.

The years were full of life, but eventually Lucky's health began to deteriorate. This fall, the Bipes faced a very difficult decision and realized it was time to let Lucky go. They felt compelled to donate Lucky's body to the VHC so

that a student could learn from Lucky or so that he could help another dog.

"I remember Lucky's owners stating it was important to them that Lucky be donated for learning purposes," Tera Barnhardt, fourth-year veterinary student said. "I expressed my gratitude to them as a student and tried to convey the importance of what we are able to learn from animal donations."

Little did anyone know just how important Lucky would be to Vida's family and the important role he would play in saving her sight and quality of life.

"I will never forget my time with Lucky's family just before he passed," Tera said. "All we can ask of clients is to treat their animals with love and in the short time I spent with the Bipes, I know that Lucky had a very full life."

"We felt fortunate to give him 14 years, and for him to be able to continue a legacy is special to us. We will never have another dog like him," Amy said. ♡



# DISCOVERING HOPE

## A Winning Situation

## Dr. Greg Grauer



when the results of our trials are presented at meetings and published in peer-review journals,” Dr. Grauer said. Trials also provide the opportunity to employ veterinary students, give them career relevant experience and allow them to better understand all aspects of clinical faculty positions — namely research and scholarship. “Clinical trials involve teaching and client communication/education,” Dr. Grauer said. “It involves working with patients in clinical settings and eventually disseminating new ideas. This experience has a tendency to positively influence students,” Dr. Grauer said of the impact the program has on encouraging students to consider post-graduate training and careers in research.

K-State, which is on its way to being a top 50 research university, can also claim the research accolades that come with successful clinical trials.

“Clinical trials help drive department and college funding,” Dr. Grauer said. Dr. Grauer has received more than \$1 million of clinical trial research funding since 2006 from leading animal health companies including Iams, Hills, Heska, Merck, Vetoquinol and Idexx.

“Having an established area of expertise and focus contributes to success in finding and executing clinical trials,” Dr. Grauer said. His expertise in renal disease in dogs and cats have resulted in funding for clinical trials that allow him to offer new therapies and new diagnostic tests to VHC patients.

### Early Detection is Key

One of Dr. Grauer’s current projects evaluates early diagnosis of chronic kidney disease in dogs and cats.

“Advanced stage chronic kidney disease in humans is often managed by renal replacement therapy, transplantation or dialysis. Those renal replacement therapies are not viable options in veterinary medicine because of limited

availability and cost,” Dr. Grauer said.

“The key in veterinary medicine, and human medicine, is early diagnosis before the disease adversely affects quality of life. If one can diagnose kidney disease early in the process, it tends to increase treatment options and provides a better opportunity to preserve kidney function and quality of life,” Dr. Grauer said. This particular study looks for potential biomarkers that can facilitate the diagnosis of chronic kidney disease

“Clinical trials increase hands-on teaching opportunities for our students, provide projects for graduate student training and give our department and college a little bigger footprint in the academic community”

- Dr. Greg Grauer

“It’s a win-win-win,” Dr. Greg Grauer said, describing his clinical trial program at the VHC. Dr. Grauer, internal medicine professor and Jarvis Chair of Small Animal Internal Medicine, is dedicated to advancing the VHC and veterinary medicine through clinical trials. He believes clinical trials are a triple-win: providing potential benefits to patients, referring veterinarians and the future of veterinary medicine. “Clients receive top notch care for their individual animal, referring veterinarians benefit by referring patients that fit the parameters of the study and the VHC clinicians, staff and students better learn how to manage a disease process that can contribute to improved veterinary care in the future,” Dr. Grauer said.

### Beyond the Exam Room

The positive impacts of clinical trials reach far beyond our patients. Veterinary students, interns and residents have the opportunity to experience research as a potential career path. “Clinical trials increase hands-on teaching opportunities for our students, provide projects for graduate student training and give our department and college a little bigger footprint in the academic community

at an earlier stage and predict which patients are going to have stable or progressive chronic kidney disease. “Kidneys have remarkable reserve capacity. Traditional blood and urine tests don’t show abnormalities until greater than 75-80 percent of kidney tissue has been lost,” Dr. Grauer said. “We are looking for blood and urine tests that signal early stage chronic kidney disease — when only 25 to 50 percent of kidney tissue has been lost.”

### Exploring New Options

Another ongoing study investigates the effects of hyperthyroidism, a fairly common condition in older cats that adversely affects kidney function. Hyperthyroidism boosts metabolism causing an increase in heart rate and cardiac output. This “souped-up” condition makes it difficult to diagnose underlying kidney disease. There are three methods of managing hyperthyroidism: surgically removing the thyroid glands, which is an invasive operation, but potentially provides a cure; Tapazole drug therapy, which controls the problem but is not curative and may have unfortunate side effects; or treating with radioactive iodine. “Radioactive iodine accumulates in the thyroid gland and damages the hyperplastic follicular cells that

produce excessive thyroid hormone. Radioactive iodine is potentially curative, but also expensive,” Dr. Grauer said.

“Hill’s Pet Nutrition came up with a new approach,” said Dr. Grauer, referring to a specially formulated diet that restricts the amount of iodine fed to the cat. “Since iodine is necessary for thyroid hormone production, the thyroid gland can’t produce thyroxine if it is starved for iodine.” This diet controls the disease, but does not cure it and requires extremely strict dietary compliance to be effective. Dietary therapy appears to be a relatively simple solution with few side effects. “Currently, we are investigating what effect this diet has on muscle mass and kidney function in hyperthyroid cats,” said Dr. Grauer.

Success in clinical trials is a combination of having a good reputation in the field, proposing doable and practical projects with benefits to industry and veterinary medicine and being in the right place at the right time according to Dr. Grauer. He and other VHC clinicians recognize the importance of clinical trials and look forward to continuing to advance veterinary medicine through clinical research at the VHC. ▽



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# REFERRING VETERINARIAN

## Chisholm Trail Animal Hospital

A home-grown team. A family of passionate veterinarians. A partner in pet health.

Each of the veterinarians Dr. Dan Thompson has employed at the Chisholm Trail Animal Hospital previously worked for him in different capacities at Chisholm Trail before they were veterinarians. He emphasized early on that his staff understand the importance of customer service, building strong relationships and practicing good, quality veterinary medicine.



Dr. Dan Thompson stands with a favorite piece of art "Dignity and Impedance" which hangs in Chisholm Trail Animal Hospital.

graduate of 2012, has a fresh perspective on the importance of referral cases from her recent experience as a student to becoming a referral veterinarian. Her most memorable referral case came after just two months on the job when she had a Maltese that came in with tremors. "My associate, Dr. Lori Mitchell mentioned hearing of 'White Dog Shaker Syndrome,'" said Dr. Martin. Since she had never seen a case like this, she referred her client to a specialist at the VHC.

"Here, if you have a question, you don't hesitate at all to send them to the VHC," Dr. Martin said. She also appreciates the fact that VHC clinicians are available to take her phone call or email and she doesn't always have to send the patient on the two-hour trip to Manhattan for a consult.

*"Here, if you have a question, you don't hesitate at all to send them to the VHC."*  
- Dr. Kelly Martin

"Clients don't hesitate," Dr. Martin said referring to the clients' response to visiting the VHC for a specialist. As for the Maltese, White Dog Shaker Syndrome was confirmed and, after regular consults with the VHC, its condition is under control.

Dr. Lori Mitchell is the only Oklahoma State graduate of the four and, even though the distance is about the same to Stillwater as it is to Manhattan for referrals, Dr. Mitchell sends patients to the VHC for specialty services. "The other doctors here are more familiar with the VHC. I just fell into the groove of referring to the VHC. I've had such a great experience," said Dr. Mitchell.

Dr. Mitchell enjoys challenging internal medicine cases and surgery, as well as being a certified rehabilitation practitioner. "It has been a passion of mine because I compete with my dogs," said Dr. Mitchell. "Adding that to the practice has been really beneficial."

Dr. Cindy Payne-Robertson's career with Chisholm Trail started just a few years after its inception, as a ward attendant. Dr. Payne-Robertson joined Chisholm Trail soon after graduating from the KSUCVM in 1985. Dr. Payne-Robertson is active in the Kansas Veterinary Medical Association, including her service as a past president of the organization.

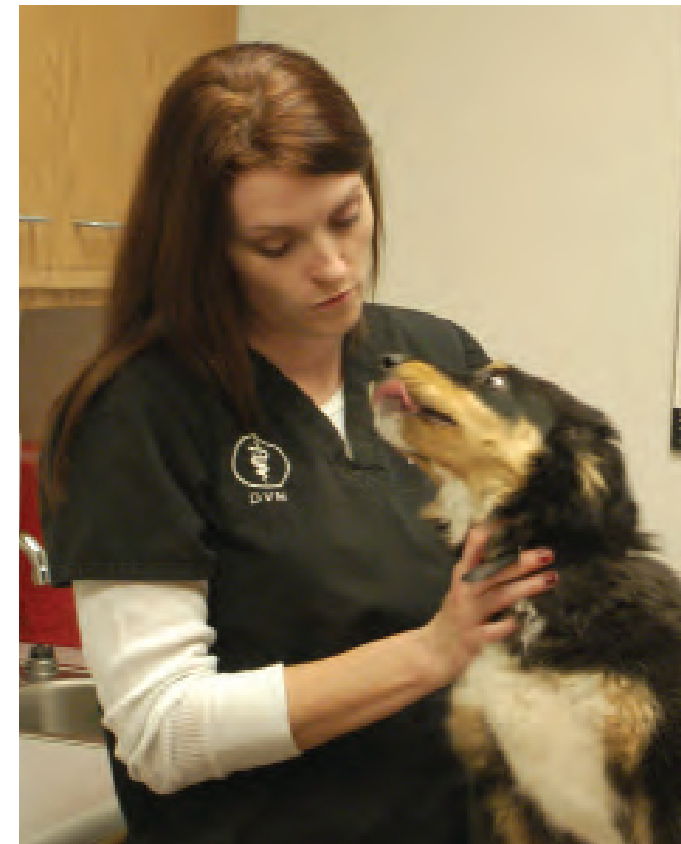
### The Road to Chisholm Trail

Dr. Thompson had early Kansas State influences in his father and two uncles who were K-State graduates. After a childhood on his family's farm and with the influence of a local veterinarian who opened his eyes to the veterinary profession, Dr. Thompson was destined for a future in veterinary medicine – beginning at K-State. "I was very fortunate to know that I always wanted to be a veterinarian. When I was accepted, that was a big day," Dr. Thompson recalls of being admitted to KSUCVM.

After graduating from the KSUCVM in 1975 and practicing for a short time in Chicago and Salina, Kan., Dr. Thompson brought his talents to Park City, Kan. and Chisholm Trail Animal Hospital was born in 1979. Initially a mixed animal practice, Chisholm Trail became exclusively focused on small animals when the livestock in the area were slowly overtaken by suburbia.

### Power of People

Three of the four veterinarians at Chisholm Trail are KSUCVM graduates. Dr. Kelly Martin, the most recent



### Partners in Health

With this solid foundation of veterinarians, Chisholm Trail is able to focus on patient care and client education. "We have built a client base that cares a lot about their animals," Dr. Thompson said, adding that they encourage wellness programs to discover problems before they become advanced problems. "We've referred a lot of cases over the years. It's an essential part of our practice — the influence and the help of specialists. You can never get enough opinions when a case is especially chronic or the progress of a case is not moving forward like it should. It's about timing and calling in specialists. Our client base gets well-acquainted with the VHC, so it's not a real big thing to tell them to get it checked out."

With passionate employees dedicated to a culture of customer service and a team of exceptional veterinarians who believe in strong partnerships with specialists at the VHC, Chisholm Trail Animal Hospital is continuing the tradition of excellent animal care started on

Dr. Kelly Martin examines a puppy during her daily routine at Chisholm Trail Animal Hospital.

Dr. Thompson's childhood farm. ▼

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