

AnimalLIFE

Fall 2013



Veterinary Health Center

AT KANSAS STATE UNIVERSITY

TO DISCOVER. TO TEACH. TO HEAL.

FEATURING

Service dogs receive eye exams

Unique diagnostic measures save life

Specialists' persistence pays off

Sunset Zoo clinic dedication

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

Dedication.

Our clinicians use this word to describe our clients.

Our clients often use the same word to describe our clinicians, students and staff.



Kristin Loving, with Ebby and Jordy.

Dedication is what you owe to your animal the moment you bring it home.

Dedication is what your animal unselfishly shows to you on a perpetual basis. Animals have the purest sense of dedication and loyalty. They are the model of perfect companions.

As I visited with the people who make up the stories in this issue, the word dedication came up in nearly every conversation.

They say it takes a village to raise a child. It may also take a village to raise a pet. Your dedication to your animal allows our clinicians the same opportunity; the dedication to their job, the dedication to the lives that are in their hands. All made possible by your animal's dedication to you; a perfect circle symbolizing the human-animal bond and the power it holds.

Best Wishes,

Kristin Loving

AnimaLIFE

VETERINARY HEALTH CENTER AT KANSAS STATE UNIVERSITY

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Veterinary Health Center

AT KANSAS STATE UNIVERSITY

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Cover: Fergie, John and Cheryl, pg 10



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Welcome back!

The Veterinary Health Center at Kansas State University is improving every day! This March, we installed a new multi-slice CT in radiology to enhance our diagnostic capabilities. Read about the difference this makes in patient care in Picture Perfect on page 16. Our clinicians are among the most gifted in the nation and we strive to provide state-of-the-art equipment and facilities commensurate with their talent and commitment.

I would like to send a heart-felt thank you to five exceptional friends of the VHC who hosted the Horsin' Around event highlighted on the back cover of this issue. They helped raise more than \$25,000 that will be used to aid in purchasing a table that will allow equine patients to be imaged using our new CT unit.

The VHC satellite clinic at Sunset Zoo opened in June. We are proud to announce its dedication to our own Dr. James Carpenter, who has worked with the Sunset Zoo collection for the past 23 years. This renovation was an excellent example of 'town-gown' cooperation. The City of Manhattan, Sunset Zoo and the VHC worked hand-in-hand to create an exceptional medical facility. Also, thanks to the dedicated donors who provided funds for new equipment in the zoo clinic. Please read about these exciting changes and our friends who made them possible on page 14.

Chapman-Mellenthin Plaza, the new small animal entrance to the VHC, has been completed and we invite you to come take a look and enjoy the serenity and beauty of this very special place.

It is always a pleasure for me to share our highlights with you in AnimaLIFE. We are blessed to have the opportunity to teach exceptional future veterinarians and care for animals that need us. I join you in being very proud of the VHC family and appreciative of their remarkable commitment.

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. Matt Miesner uses the 360-degree rotating chute to treat a lame cow at the VHC.

It was, by his own admission, an unusual route that brought Dr. Matt Miesner to his current position as a clinical associate professor in the VHC's agricultural practices service. "I always liked handling animals, as well as learning about the treatments. It always interested me," said Dr. Miesner. His interest in veterinary medicine was cemented by a visit to a local veterinarian. Miesner was able to assist the veterinarian as he performed a cesarean section on a cow. "It was amazing to watch such a complicated procedure and see a positive end result," said Dr. Miesner.

Dr. Miesner initially intended to focus on equine medicine in veterinary school at Washington State University. He soon discovered his preference was less equine-exclusive and became dedicated to a career in mixed animal practice emphasizing cattle and livestock.

Dr. Miesner's wife, also a veterinarian, pursued an internship at The Ohio State University. With one year of mixed practice experience, Dr. Miesner joined her at OSU by filling a vacant food animal medicine and surgery residency. After six months, he

readily accepted OSU's offer for a full residency, which turned into a faculty position where he spent the next three years. Dr. Miesner is a New Mexico native who applied for and accepted a position at the VHC in 2006 so he and his family could move back west.

While Dr. Miesner's appointment is primarily clinical, he enjoys collaborating on animal research with Drs. Brad White and Robert Larson, fellow faculty in the VHC. His real passion, however, is teaching and helping students accomplish their goal by applying three years of learning to a clinical patient.

"I intended to return to mixed practice, but I have remained in academia because I enjoy teaching the students. It's rewarding to watch the light come on when they figure something out. I see a wide variety of cases and the opportunity to work with a wide variety of specialists. I learn something all the time," said Dr. Miesner.

Dr. Miesner's principal clinical interest is lameness. "My master's thesis was work with force plates, analyzing weight distribution across cattle claws while walking," Dr. Miesner said. Livestock lameness cases are typically seasonal. Spring and fall are busy times when cattle are being worked and moved to and from summer pasture and lameness is noticed more often. It is common for Dr. Miesner and the students to examine a half dozen animals in the 360-degree rotating chute in the VHC per day.

Dr. Miesner stresses the importance of early identification of lame animals. "Monitor them closely for improvement after initial recognition or treatment. A simple case of footrot should respond to antibiotics quickly, but if not, it's time to look closer for the underlying cause before it

gets out of hand. Trimming overgrown feet before pasture turnout is also a good preventative measure," Dr. Miesner said.

"Ag clients are some of the most enjoyable people to work with. They are very knowledgeable, always willing to listen and very appreciative of what we do, just as I appreciate what they do," Dr. Miesner said.

Dr. Miesner is married to Dr. Tracy Miesner who works in the comparative medicine group at the College of

Veterinary Medicine. The couple has two children, BreAnn, and Owen, four horses, a greyhound, and two cats. ♡

"Ag clients are some of the most enjoyable people to work with. They are very knowledgeable...and very appreciative of what we do, just as I appreciate what they do."

- Dr. Matt Miesner

Workin', like a dog



Our dogs serve us in a vast number of occupations. Some are dedicated companions while others put in long hours at the office and in the field. This silent workforce serves your community and you may not even know it. Because they train hard, work hard and play hard, the VHC believes in giving back to these valiant companions.

In cooperation with the American College of Veterinary Ophthalmologists (ACVO) and Merial, the VHC sponsored eye exams to service dogs at no cost to the owners and handlers in the month of May. The VHC ophthalmology service treated dogs with occupations in therapy, narcotics, explosives and fire investigation.

“Our goal was to screen active working animals for eye diseases that could impair the ability to perform their job, and in doing so help them to better serve their human owners and handlers,” says Dr. Jessica Slack, assistant professor of ophthalmology, at the VHC.

Dr. Amy Rankin, associate professor of ophthalmology, and Dr. Slack performed these exams to identify conditions such as retinal disease, cataracts, glaucoma or other abnormalities. Each animal’s exam took about 30 minutes.

Here are a few of the dogs the VHC had the pleasure of examining.

Ashes



Ashes indicates she has found a hidden tool by sitting next to it during a demonstration for VHC faculty and students.

Ashes, an appropriately named spunky black Labrador, can sniff out 14 different odors that are known accelerants for fires in less than .5 micro liter quantities. One of the first on the scene, her attitude is all business. Handler, Troy Long, is a fire prevention officer for the Salina Fire Department and Ashes is the first working canine owned by the city of Salina.

A working canine requires a large investment by a community, and Troy had to guarantee sponsors to help support her before the city would invest in a dog. Ashes is sponsored by several local businesses that provide her food, grooming and veterinary services.

Troy brought Ashes home when she was 10 weeks old and has dedicated his time to her training and care. Ashes lives at home with Troy and his family, but not without a few adjustments for the family. “As a detection canine, Ashes has to be able to jump up on things to investigate, which means at home, you can’t discourage her from jumping on kitchen

counters or furniture,” Troy explained, just one of the many challenges of training a working dog.

Troy and Ashes are certified by the Heart of America Police Dog Association. They are available to offer their investigation services to fire departments throughout the central Kansas area.

Ashes received a clean bill of health from Dr. Rankin. After her appointment, Troy and Ashes demonstrated some of her detection skills to VHC faculty and staff. “Typically, we would have to hide an object and leave it for several hours, then have her find it,” Troy said.

Troy threw a small tool into the yard in front of the VHC, which Ashes found immediately, and she excitedly sat next to her find to indicate she had completed the task.

“Ashes is not rewarded with food, but with play time,” Troy said. She was quickly released to play, enjoying the sights, sounds and smells of the veterinary campus.

“Dogs are not our whole life, but they make our lives whole.”
-Roger A. Caras



Daisy and Deek

Narcotic dogs provide a level of security and contraband detection that is unmatched by humans or technology.

Daisy and Deek are members of the El Dorado Correctional Facility Canine Unit. Trained in narcotics, these Belgian Malinois find dangerous drugs and contraband coming into the facility. They typically inspect between 200 and 300 items each day.

Deek is 5 years old and was donated to the unit when he was about 1.

“It is rare that a donated dog works out, but Deek passed all of the initial testing when he was brought in and went on for further training,” Leonard Maddox, his handler, said.

Daisy was trained as a puppy and is now 9 years old. Both dogs received positive reports from Dr. Rankin.



Chico

Those who protect our country do not always wear combat boots and camouflage; some come in a smaller size with a couple of extra legs. Military Working Dog (MWD) Chico specializes in patrol and explosive detection at Fort Riley.

Chico is part of a team of 14 dogs at Ft. Riley, trained in a variety of specialties to aid and protect our soldiers and nation. Chico serves as law enforcement with Private First Class Sean Davis.

Just like other soldiers, PFC Davis and Chico can be deployed overseas to serve on explosive detection patrol. The duo provides support to different units including special forces, infantry and artillery on patrols, vehicle check points and searches for buried explosive devices. In a previous deployment, Chico served on several missions and was responsible for finding multiple explosive devices.

Dr. Slack cleared Chico of any eye-related diseases.



Schwan

A loving 11-year-old Labrador named Schwan patiently waited while Dr. Rankin completed her eye exam. Schwan was James Geary’s service dog from 2004 through this summer.

James received Schwan from an assistance dog training program where she learned many basic service dog tasks. After two additional weeks of training with James, their partnership was sealed. Schwan is trained to help James retrieve items off of the floor, push buttons to open doors, brace James so he can stand and to find help if needed.

Schwan retired this summer and spends her days as James’ pet while his new dog Ella has taken over the daily duties. James graduated from Kansas State University in May. He will return this fall to pursue his MBA, and, certainly, Ella will be close by.

Dr. Rankin found Schwan’s eyes in good condition. ▼

DISCOVERING HOPE

Markers of Success

Dr. Tom Schermerhorn



Dr. Tom Schermerhorn

Dr. Tom Schermerhorn heads a program of interrelated research projects that build upon each other and the clinical work he performs as associate professor of internal medicine at the VHC.

“The idea of developing project topics is that they are all related to one another. You learn something from the results of one project that can be used to inform or advance another one. It’s a way to focus your energy and attention on one area,” Dr. Schermerhorn said. His research has great potential for advancing veterinary and human medicine.

After finishing his residency at Cornell University, Dr. Schermerhorn worked in a diabetes laboratory and was attracted to its complexity and obscurity; research is not just black and white. He continues this path of research at the VHC and is dedicated to probing the uncertainty surrounding diabetes in our pets.

Dr. Schermerhorn, Dr. Jennifer Reinhart, a VHC resident, and Misty Yancey, the Morris Animal student scholar from the CVM class of 2015, are conducting research to discover a clinical marker that identifies hyperosmolality. This condition is a metabolic imbalance of plasma constituents, such as glucose and sodium (most often caused by common endocrine diseases, such as diabetes). Finding this marker

would provide a way to diagnose and treat hyperosmolality. “It’s a metabolic disturbance that causes blood to have characteristics it normally doesn’t, negatively impacting cell function,” Dr. Schermerhorn said. “If you successfully restore normal osmolality, you have probably addressed the underlying metabolic problem.

“Hyperosmolality causes water to move through the cell membrane out of the cell. Our current investigation is based on the physiological concept that if you put red blood cells in pure water, they suck up the water and burst. If you put them in a high salt solution, they shrink. The salt solution mimics hyperosmolality in that case.

The test they developed simulates that situation by putting red blood cells from patients with hyperosmolality into an analyzer of normal osmolality. “Blood cells have adapted to their present condition, so when put in a solution of normal osmolality, they expand or shrink based on to the plasma environment they were adapted to,” Dr. Schermerhorn said. “By measuring their reaction, we have a 70-80 percent chance of predicting hyperosmolality.”

Finding this marker would allow clinicians to easily screen for hyperosmolality in dogs. This research project was funded by the Mark Derrick Canine Research fund and Veterinary Research Scholars Program sponsors, Morris Animal Foundation, Merial Animal Health and NIH.

Another project, in collaboration with the Johnson Cancer Center, takes a closer look at canine insulinomas which are pancreatic tumors that produce excess amounts of insulin making pets ill.

“Normal pancreatic cells have a built-in molecular sensor which responds to rising glucose,” Dr. Schermerhorn said. “When something goes wrong, insulinomas become malignant, like a tumor. They can still respond, but they don’t shut off. They are more sensitive to glucose and over produce insulin even when the glucose level in blood is already low.

“If you can alter the sensitivity or dampen the response to glucose, you could fix the critical problem, low blood sugar. If we could find a very precise compound to target insulinomas, it could be used therapeutically. This is also a model for insulinoma in people.” ▼

NEW FACES

EXOTIC MEDICINE



Dr. David Eshar, assistant professor of exotic medicine, received his DVM from the Koret School of Veterinary Medicine at The Hebrew University of Jerusalem. He spent three years in private practice before completing an internship and residency in exotic animal medicine and surgery. Prior to the VHC, Dr. Eshar worked as an exotic medicine consultant.

EQUINE



Former VHC equine surgery resident, Dr. Liz Devine, accepted the large animal emergency surgery position. Dr. Devine received her DVM from Iowa State University then completed an internship at Oakridge in Edmond, Ok. "I look forward to providing quality emergency services to equine patients and an exceptional clinical education to students," Dr. Devine said.

AG PRACTICES



Dr. Nora Schrag, clinical assistant professor of agricultural practices, is a 2006 graduate of KSU CVM. Upon graduation, she completed an externship in Paraguay and has most recently practiced in a mixed animal clinic in Fairbury, Neb. "I hope to give students typical practice experience to perform field medicine," Dr. Schrag said.

SMALL ANIMAL SURGERY



Dr. April Durant, assistant professor of soft tissue surgery, joins the VHC from a surgical center in Cincinnati. "My hope is to improve the quality of life of my patients with compassion and understanding for the caretakers and provide an enthusiastic atmosphere in which veterinary students can apply didactic knowledge in a clinical setting," Dr. Durant said.

OPHTHALMOLOGY



Assistant professor of ophthalmology, Dr. Jessica Slack, joined the VHC after finishing an MS in ophthalmology and ophthalmology residency at Purdue. "My goal is to make a difference in the lives of my patients and clients by treating a variety of diseases that affect vision and cause discomfort. I also plan to actively participate in clinical research," Dr. Slack said.

SMALL ANIMAL EMERGENCY

Dr. Sasha Thomason recently came to the VHC from Atlanta, where she was an associate emergency room veterinarian. "I want to use my experience and the emergency case load at the VHC to help students learn how to triage patients, determine when a specialty referral is needed, how to approach patient care when a referral is declined by the owner and how to effectively communicate with owners," Dr. Thomason said.

Photo: Jason White Photography



CARDIOLOGY

Dr. Justin Thomason joins the VHC to enhance the cardiology service. Dr. Thomason received his DVM from Oklahoma State University and subsequently completed his internship and internal medicine and cardiology residencies at the University of Georgia. Dr. Thomason aims to provide excellent veterinary care through clinical service and consultations with referring veterinarians.

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Royal Treatment

A powerful bond between clinician and patient ignites hope during Fergie's battle with kidney failure.

Dr. Kenneth Harkin, professor of small animal internal medicine, was taking a stroll in the park when a familiar bark caught his attention. Fergie, an 11-year old Yorkshire Terrier recognized him from her owners' car as they passed. "Fergie is always excited to see Dr. Harkin and all of the others at the VHC," Cheryl Walters said.

Fergie has come to know the VHC well. She is on a first name basis with a number of clinicians, technicians and desk staff. Fergie's undeniably sweet personality is apparent the moment you meet her. "Everyone loves Fergie," said Dr. Harkin. But no one brings that sweetness out quite like her dedicated VHC veterinarian, Dr. Harkin. The two have bonded over countless hours working through Fergie's ailments.

Fergie was diagnosed with inflammatory bowel disease (IBD) by her local veterinarian, Dr. John Lyons. As she aged, her IBD became increasingly severe. Dr. Lyons suggested a referral consult so Cheryl and her husband, John, brought Fergie to the VHC. After that visit, a new prescription medication seemed to remedy Fergie's IBD.

Two years later, Fergie became ill again. "We thought it was just her IBD resurfacing," Cheryl said.

John and Cheryl were shocked to receive Dr. Harkin's news that Fergie's test results confirmed a new diagnosis of kidney failure. They placed their trust in Dr. Harkin when he recommended she be taken to the intensive care unit (ICU) immediately.

The Balancing Act

"Fergie was diagnosed with acute kidney failure," Dr. Harkin said. "It became a balancing act managing her intermittent and transient high blood pressure, low protein levels, IBD, and an intestinal dysbiosis, which is an abnormal bacterial growth in the gastrointestinal tract."

This balancing act has continued for a year and a half. For awhile, Fergie was hospitalized about every six weeks. "They tried all types of antibiotics and fluids and teaching me how to give it to her," Cheryl said. After one particular episode, Fergie's tongue tip became necrotic from uremic vasculitis, an inflammation of blood vessels associated with kidney failure. Dr. Harkin's team had to use a feeding tube so Fergie

could still receive the nourishment she needed, which Cheryl eventually learned how to administer at home.

Fergie was admitted to the ICU four times. "One time I thought was the end for sure," Cheryl said. "Dr. Harkin would never give up. He called two times a day. We were very well informed and always given encouragement."

"It became a balancing act managing her intermittent and transient high blood pressure, low protein levels, IBD and an intestinal dysbiosis."

- Dr. Kenneth Harkin

"Fergie was admitted to the ICU to be put on fluids and careful monitoring until she came around each time," Dr. Harkin said. "Unfortunately, for Fergie there was no definitive cause for her kidney failure, so we didn't have something specific to treat."

"Throughout this process, I have learned how to do a lot of things I didn't think I could do. They taught me how to give fluids and manage the feeding tubes," said Cheryl.

Dr. Harkin and Fergie finish a recent appointment and visit in the VHC lobby.



Queen of Yorkie Kingdom

Today, Fergie is stabilized with medications and regular rechecks. "She is eating well, her kidney values are normal, we go on long walks and she is back in charge of the Yorkie kingdom," Cheryl said referring to her home with two other Yorkies. It is a delicate balance they must maintain. Through her regular appointments, Dr. Harkin ensures her condition remains stable and her medications continue to work together to keep Fergie healthy and happy.

"If it was not for Dr. Harkin, Fergie wouldn't have made it - his determination, trying everything and providing excellent care without question," Cheryl said. "She has had many health scares, but all the issues are controlled because of the extraordinary talent and capabilities of the staff from the receptionists, doctors, veterinary technicians and students. We are grateful for the kindness and compassion shown to our Yorkie and to us. We are fortunate to have such a premier hospital at Kansas State University." ▼

"If it was not for Dr. Harkin, Fergie wouldn't have made it."
- Cheryl Walters



John, Cheryl and Fergie Walters enjoy a bench in the newly constructed Chapman-Mellenthin Plaza.

VHC WISHLISTS

Dear Friend,

Thank you for your phenomenal support of the VHC WishLists! With your help, we were able to purchase all of the equipment listed in last issue's WishList for the James W. Carpenter Clinic at Sunset Zoo. VHC and Sunset Zoo Clinic staff are elated to have one of the finest exotic animal facilities in the nation.

This issue brings you the story of Fergie Walters, who spent months in and out of the VHC Intensive Care Unit. Many of the items on this WishList for our internal medicine service would directly benefit patients like Fergie in the ICU. This equipment allows our expert team of clinicians to provide exceptional patient care and unparalleled clinical training.

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. Roger Fingland
Director, Veterinary Health Center

Internal Medicine WishList

Internal Medicine Equipment Fund

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

Pediatric scale for isolation **\$500**

Doppler blood pressure monitor

To provide improved monitoring of patients in isolation. **\$1,200**

HD digital video camera

Used to capture teaching videos of various procedures and patient diseases, such as movement disorders. **\$1,200**

Maltron Bioscan 920-2-S bioelectrical impedance body composition analyzer

Evaluates body composition, including body fat, body water, mineral content and GFR to safely and non-invasively evaluate fluid status of patients in intensive care. **\$12,000**

Olympus HD bronchoscope

HD technology is transforming the way we see the body endoscopically. The VHC has invested in gastroscopy equipment but now hopes to bring bronchoscopic capability up to the same high level of technological sophistication. **\$35,000**

Portable ultrasound

Ideal for ICU, immediate care, or point-of-care rapid evaluation. **\$35,000**

Capsule endoscopy system

An anesthesia-free way to fully evaluate the GI tract in a completely safe, stress-free manner. **\$80,000**

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Inside Look

Sunset Zoo's annual Wine in the Wild event brought exciting announcements for the public and for the VHC's own Dr. James Carpenter.

Renovations to the VHC clinic at Sunset Zoo were completed just in time for the highly anticipated annual fundraiser on June 1st and the clinic was to be opened to the public that night for tours. At the event's VIP reception, it was revealed that the newly remodeled clinic would be named for exotics expert and VHC clinician of 23 years, Dr. James Carpenter.

The James W. Carpenter Clinic at Sunset Zoo is a combined effort of the VHC, the City of Manhattan and Sunset Zoo. A special thanks to the donors who generously provided the funds for all new, state-of-the-art equipment including Dr. Ed and Mary Frankel and Dr. Peter and Louise Kauffman. Over \$50,000 was raised to provide a new ultrasound, monitoring equipment, surgical tables and more.

The clinic can now handle not only the annual routine health care exams provided by the VHC faculty, staff and students, but more complex cases that would otherwise require transport to the VHC main facility. 🐾



Photo: Autumn Shoemaker, La Brisa Photography



1 A surgery room was added with a surgical table, surgical lights and ample cabinet space. Prior to this renovation, surgeries required transportation to the VHC. This upgrade vastly improved safety for VHC faculty, staff and students, as well as Sunset Zoo animals.

2 The new clinic features an in-house pharmacy and laboratory equipped to handle routine and small emergency cases.

3 A break area for students and clinicians was added to relieve the long days spent working at the zoo with limited time for meals and breaks.

4 There is a new conference room for students and clinicians to discuss cases and provides a superior environment for teaching and learning. The room boasts a large digital monitor for interactive learning.

5 The procedure room was updated to include modern cabinets with ample storage, surgical lights and lift table.

Clinic photography by Michael Marish.



picture perfect



When Dr. Lisa Pohlman, clinical pathologist at the College of Veterinary Medicine, first met Sophie, the Toy Poodle had just been rescued from a puppy mill in Auburn, Ala. About 2 years old, no health records and with a number of emerging health problems including cataracts, but Dr. Pohlman was captivated by the sweet dog.

Kellie Lewis Photography



The new 16-slice CT unit, installed in March, provides high resolution images of the musculoskeletal system.

Now, at 8 years old, Sophie has also developed a mast cell tumor, and suffers from cataracts that have become increasingly severe and from progressive retinal atrophy, the latter of which has caused Sophie to be blind and makes her a poor candidate for cataract surgery.

In March, Sophie came to the VHC for a routine dental to be performed by Dr. Marjory Artzer. Prior to the dental procedure, which requires anesthesia that could complicate preexisting conditions, a serum biochemistry was performed. The biochemistry showed a low glucose concentration. This prompted Drs. Artzer and Pohlman to test Sophie's insulin concentration, which was found to be high. Together these findings were suggestive of an irregularity in her pancreas that is most commonly seen with an insulinoma, a malignant tumor of the pancreas.

"We performed an ultrasound, but could not find an abnormal mass, which is not surprising as these are generally small nodules," Dr. Artzer said.

Dr. Emily Klocke, clinical associate professor of small animal surgery, was consulted about exploratory surgery to look for a nodule, but with Sophie's age and medical

history, Dr. Pohlman wanted assurance that surgery was necessary. Fortunately for Sophie, a new option enhancing the diagnostic imaging capabilities of the VHC had arrived.

Making Advancements

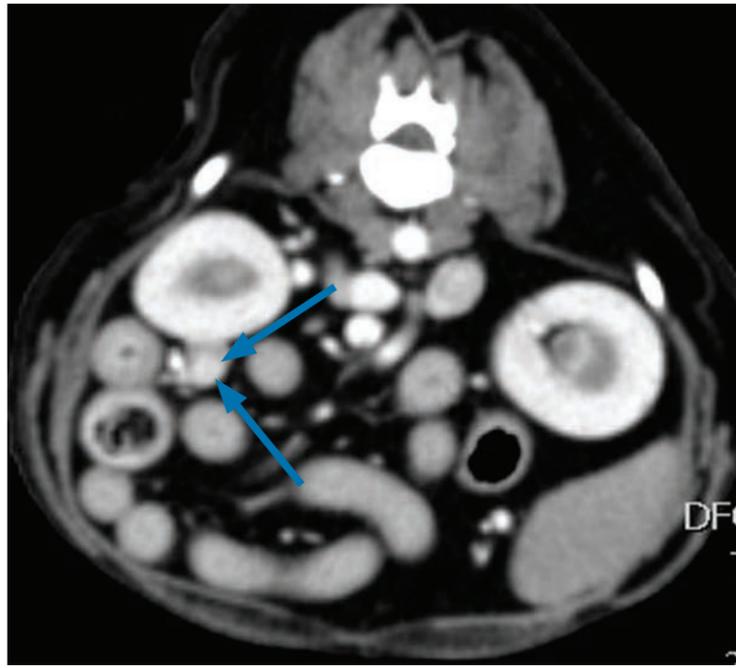
Computed tomography (CT) produces cross sectional images of the body, typically of the musculoskeletal system, including muscles, cartilage, tendons, connective tissue and joints. Images obtained in different planes can be combined to create a 3-D image of the body.

The VHC previously used a single-slice CT. In March, a 16-slice CT was installed.

"The 16-slice CT will provide higher resolution images that give us more detail," Dr. Laura Armbrust, radiologist, said. "It is also more accurate helping us identify lesions and determining whether they can be surgically excised. The scan time is faster, which makes a difference in anesthesia protocols."

The previous CT took around 60-90 seconds to complete a scan, whereas the new unit only takes about 10-15 seconds.

"That is significant in terms of deciding if an animal needs



to be fully anesthetized or if sedation is an option. For occasional cases, patients can be restrained with minimal sedation,” Dr. Armbrust said.

With the multi-slice CT, various vascular scans can be performed that provide additional important information regarding the blood flow to a region.

Definitive Diagnosis

“The use of a CT to discover insulinoma had been described in journals, but the procedure is not often performed,” Dr. Klocke explained. After discussing the possibilities, everyone agreed a CT would give them the information needed to provide a definitive diagnosis and guide a surgical procedure.

Sophie was sedated and the scan was completed quickly. The CT images revealed a small nodule in the pancreas that confirmed the cause of Sophie’s unusual glucose levels was an insulinoma.

Dr. Klocke performed the surgery, assisted by the results of the CT scan.

“She couldn’t have done better! She had a perfect incision and absolutely no complications from the surgery. Everything was wonderful!” Dr. Pohlman said. “Without the CT, I’m not sure I would have pursued surgery but I am so glad that I did. I am grateful to all who were involved with her care.”

“We caught it as early as possible, which allowed the surgical removal and avoided the symptoms of seizures and weakness that are often complications of an insulinoma,” Dr. Klocke said.

Dr. Artzer agreed, “We found it before she had clinical signs and were able to preserve her quality of life.”

A resourceful, committed and innovative team along with advanced diagnostic imaging equipment helped Sophie before she had to suffer. In return, Dr. Artzer describes Dr. Pohlman in one word: “Dedicated”.

The CT provided a perfect picture of Sophie’s condition and now Sophie has returned to living a full and happy life with Dr. Pohlman. ▼

Top left: Blue arrows point to the pancreatic nodule in Sophie’s CT image. Left: Dr. Lisa Pohlman and Sophie enjoy the outdoors after Sophie’s surgery. ▼



Photo: Kelly Lewis Photography

A FOREVER-HOME



Joe and Jenna Booe hold Stumpy with their children Carter and Lauren.

It is a phone call we hope we do not receive often and one that brings great sadness and responsibility. In October, the development office at the College of Veterinary Medicine received news that a member of the Perpetual Pet Care Program had passed, leaving three cats in the care of the VHC.

Within hours, the development staff had arranged transportation from the cats’ home in Wichita to the VHC for care and adoption. After making the two hour trip, Stumpy, Beauty and Toughy arrived at the VHC and immediately received full physical and wellness exams from Dr. Kenneth Harkin, professor of small animal internal medicine.

The cats received a clean bill of health and a search for a new home began. Dr. Harkin initiated the search and, quickly had willing and dedicated applicants from within the VHC family.

Stumpy, named for his missing tail, captured the eye of Joe Booe, former CVM development officer. Joe brought his wife, Jenna and children,

Carter and Lauren in to meet Stumpy and it was an instant match!

Jen Free, large animal veterinary technician, eagerly adopted Beauty and Toughy, who now enjoy a full life on the farm with Jen’s two boys.



The Perpetual Pet Care Program was the first of its kind, offering peace of mind to pet owners who want to ensure their pet’s well-being when they can no longer care for them. In the Perpetual Pet Care Program, the owner documents a gift to the CVM in a living trust. In the event that the owner is no longer able to care for the animal, the VHC provides care until an adoptive home is found.

These three cats now have loving, forever-homes and will always receive the care they need from the VHC because of the Perpetual Pet Care Program. ▼

For more information contact the development office at 785.532.4378 or learn more at <http://PPCP.vet.k-state.edu>.

REFERRING VETERINARIAN

Animal Doctor Veterinary Clinic



It may only be 8:30 in the morning, but the Animal Doctor Veterinary Clinic in Junction City is buzzing like rush hour! The morning starts off with daily appointments as one of the two doctors begins surgeries and the other starts patient exams. Between the two full-time veterinarians, Dr. Jennifer Arneson and Dr. Julie Ebert, Animal Doctor sees about 40 patients per day. In addition to medical care for dogs, cats and small exotic animals, the clinic features a “one-stop-shop” which also includes grooming and boarding services.

Dr. Arneson, a 1997 graduate of the Kansas State University College of Veterinary Medicine, started the practice in 1998, steadily building the clinic and services, and combining with another local clinic in 2007. She was a solo practitioner until Dr. Ebert, 1996 KSU CVM graduate, joined her in 2010. Dr. Ebert had a number of years of private practice experience before she moved to an industry job for five years, then ultimately back



Dr. Jennifer Arneson (left) examines a patient in one of the exam rooms at Animal Doctor.

into private practice with Dr. Arneson.

Drs. Arneson and Ebert believe their most valuable tool is simple courtesy. They also emphasize excellent client education every day. Dr. Ebert has a special interest in animal behavior and visits with each new client about their goals for the animal.

One of Dr. Ebert’s most difficult cases visited recently. Dr. Ebert treated Ethan, a Sheltie, for granulomatous encephalitis, or severe inflammation of the brain. Dr. Ebert’s recommended treatment of steroids and antibiotics has improved Ethan’s condition and she expects him to continue to make progress.

“We rely on what we know and the equipment we have to make pets better. Sometimes our best tool is our brain,” Dr. Ebert said.

Some cases do require another level of care. Certain cases that are unique or require advanced equipment or

care are referred to the VHC. Drs. Arneson and Ebert refer patients that require 24-hour critical care, orthopedic surgery, cancer therapy and advanced diagnostic procedures.

“Tiger, a Pekingese, had a gingival mass in his lower jaw. Test results showed it was a cancerous tumor,” Dr. Arneson said. This type of gingival mass is uncommon and Dr. Arneson recommended the oncology and surgery services at the VHC. “The VHC was able to remove a portion of the lower jaw and Tiger is doing fantastic. Tiger’s owners were really pleased with the outcome and the service,” Dr. Arneson said. Dr. Ebert added that they, as veterinarians, always learn from working with the VHC as well.

VHC small animal surgeon Dr. Emily Klocke is equally grateful for the relationship with Animal Doctor.

“We enjoy working with Dr. Arneson and Dr. Ebert on referral cases. They are good communicators and call us ahead of a patient arriving here to go through the case with us. This early communication helps to prepare clients for what to expect when they arrive at the VHC and shows a team approach between Animal Doctor and the VHC. They are always helpful with follow up care on patients and that team approach between Animal Doctor and the VHC continues well after a patient is discharged from the VHC. This results in the best and most consistent care for our patients,” Dr. Klocke said.

Animal Doctor’s client base ranges from the farm dog to the highly pampered pooch. As they continue to grow, they make plans to further expand their reach and services in the near future. ▼



Dr. Julie Ebert and Zelma McMillin discuss Ethan’s test results.

Photo: Liz Noffsinger/FreeDigitalPhotos.net



Everyday Heroes

In March, Dr. David Eshar received a magnificent red-tail hawk from a passer-by. The hawk had a drooped wing indicating a severe trauma. Radiographs revealed a bullet, but, fortunately, no fractures.

“We bandaged the wing, and stabilized the bird with antibiotics and pain medications,” Dr. Eshar said. Milford Nature Center accepts many animals that have been treated by the VHC for rehabilitation. This hawk went to Milford and was trained to fly again in an outdoor cage by dedicated personnel at the Center. The hawk was recently released back into the wild.



The VHC receives animals that have been rescued by community patrons; everyday heroes to many animals. Each animal undergoes an examination, but funds for testing and treatment are limited. VHC clinicians do their best to stabilize and make the animal comfortable.

It takes significant resources to properly care for the animals frequently brought to the VHC, and a donation fund has been established to provide the best care possible. If you have a passion for wildlife, please consider donating to the Wild Animal Medical Care Fund so Drs. Eshar and James Carpenter can continue to provide hope for the community’s wildlife population.

For more information, call Kristin Loving at 785.532.4046 or send your donation to:

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Tail Ends | Horsin' Around



Left to right: Jo Turner, Sheryl Strathman, Frances Dudley, Kate Fowler and Cheryl Thomas

Photos: Teri Zaiss

With a goal to raise funds for a vital piece of equine imaging equipment, a group of equine enthusiasts gathered in Berryton, Kan. on April 4 for a barbecue, auction and fellowship.

Through the dedicated efforts of Frances Dudley, Kate Fowler, Jo Turner, Cheryl Thomas and Sheryl Strathman, the event raised more than \$25,000 for a table that will enable VHC equine patients to take advantage of the newly updated CT unit.

Auction items were generously donated by many attendees and other friends of the equine section. Highly contested auction items included Kansas State University and Kansas University athletic ticket packages, as well as a trip for four to Lexington, Ky. to visit Keeneland Race Track and other area attractions.

VHC's Dr. Roger Fingland, director, and Dr. Elizabeth Davis, equine section head, were on hand for the event. "We are so grateful for this wonderful event and the support the equine community showed. Our equine patients and clients will soon have access to a piece of equipment that provides better diagnostics than we have ever been able to provide," Dr. Davis said.

