Healing Hands



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Perfect

Dr. Mike Dryden: Passions for Photography and Parasitology



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Also in this issue: K-State's first National Academies member: Dr. Jim Riviere

Perserverance pays off at Iditarod



College of Veterinary Medicine

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Healing Hands

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About the cover: A family of coastal brown bears huddles together during a light rain. (Photograph by Dr. Michael Dryden, taken in July 2011 at Silver Salmon Creek in Lake Clark National Park, Alaska.)

Foreword — progress

A vision and master plan focus on animal health

The College of Veterinary Medicine is deeply invested in the future of Kansas State University, and we are excited about the visionary plan for the university to be recognized as one of the nation's top 50 public research universities. At the end of the summer, the 2025 Research Themes Committee released a report that positions our college to be a major player in achieving the 2025 vision.

Animal health and models of human disease were identified together as a top tier priority area that (1) is likely to attract support from funding agencies in the future and (2) has a strong base of success already established at Kansas State University. Two other strategic priorities that were identified are: cancer/immunology and food safety. This means our college has the opportunity to assume a greater role of leadership within the university.

We were very fortunate this year as the Kansas legislature recognized that in order to have a top tier university, an investment needed to be made to ensure adequate resources are necessary for personnel, facilities and renovations. Even in a challenging economy, the state responded



by increasing funding to the college by \$5 million in its annual base budget. To properly utilize this budget increase, a master plan has been developed to enhance our people, places and programs.

To that end, in August, a member of the Institute of Medicine, Dr. Jim Riviere became the university's first National Academy of Sciences faculty member and was appointed to the MacDonald Professorship in Veterinary Medicine and University Distinguished Professor of pharmacology. Dr. Riviere will be focusing much of his efforts on leading the Institute for Computational Comparative Medicine, which will provide mathematical models in animal health and food safety. You can read more about Dr. Riviere later in this issue of Healing Hands.

Our interdisciplinary efforts are continuing and growing in conjunction with K-State's Bioscecurity Research Institute, National Bio- and Agro-defense Facility, Beef Cattle Institute, the Center of Excellence for Emerging and Zoonotic Animal Diseases, the Johnson Cancer Research Center, the U.S.-China Center for Animal Health and a variety of programs that have been featured over the years in our Healing Hands magazine. The next three to five years are going to be tremendously exciting as all of these pieces come together.

We also want to thank our alumni and friends for supporting the college, who were generous enough to make this a very successful year in fundraising with more than \$8 million in private gifts for scholarships and other college activities. Each gift makes a big difference in the lives of our students while enhancing animal health, which provides benefits for everyone.

As always, we invite you to keep in touch and hope you enjoy the stories about the exciting activities of our students, faculty, staff and alumni in this issue of Healing Hands.

Sincerely,

the (. Rihand DM.

Ralph C. Richardson, DVM, Dean

bits & **BYTES** from the College of Veterinary Medicine

Clement joins Development Office

Kristin Clement joins the CVM development office. She will be responsible for the biannual production of the magazine AnimaLIFE and other hospital publications. She joins the college from Nanoscale



Kristin Clement and Jordy

Corporation, a Manhattan organization that specializes in chemical research and development. Kristin served as the marketing coordinator. She graduated in finance from K-State in 2009.

BCI injects fun at Discovery Days

The Beef Cattle Institute (BCI) taught Kansas youth some edible examples of why Beef Quality Assurance (BQA) is an integral part of today's beef industry at the 2012 4-H Discovery Days. As part of two, twohour sessions on animal welfare and BQA, 4-Hers were



A 4-H student practices cattle injection techniques on a loaf of bread at Discovery Days.

taught and allowed to practice the proper methods to use when giving injections to cattle. How did they practice this? By using "cattle" made in the bakery: a loaf of bread!

Trip takes international study team to Tanzania

This past May, Dr. Rose McMurphy, section head in anesthesiology in the Clinical Sciences department, took a small group of veterinary students to Tanzania as part of the International Veterinary Study Tour elective. The goals of the elective were to gain an understanding of the challenges of raising livestock in a developing country, to identify the predominant zoonotic diseases and their impact on a community, to discuss the impact, both positive and negative, of ecotourism and to recognize problems associated with wildlife conservation in a country with limited financial resources. The elective course involved both didactic instruction before the trip and a 10 day tour of northern Tanzania.

"It is difficult to know what the impact of this tour might have on each individual student," Dr. McMurphy said. "Certainly getting to visit a place as beautiful as the Serengeti cannot be discounted, but I think the greatest impact comes from meeting the people of Tanzania and an appreciation of daily life in a country



Second-year student Andrea Olson and third-year student Lauren Keller learn a local custom.

where over 80 percent of the population lives below the international poverty line."

Simon Sandilen, a logistics officer with Heifer International, accompanied the students on a visit to four remote farms in the area surrounding Mt. Meru.

K-State trio sweeps Smithcors Essay Contest

Three CVM students were recently selected as the winners of the Smithcors Essay Contest sponsored by the American Veterinary Medical History Society. The contest is held to increase awareness



Third-place winner and fourth-year student Katie Beach; first-place winner and secondyear student Amy Sents; and second-place winner and second-year student Tracey Mullins.

among veterinarians about the significant role veterinary medicine has played in American history. The contest winners this year were: firstplace Amy Sents, second-year veterinary student; second-

place, Tracey Mullins, second-year veterinary student; and third-place, Katie Beach, fourth-year veterinary student.

"I require our students who enroll in AP 780, History of Veterinary Medicine and also in AP 747, Veterinary Physiology II, to write a paper and encourage them to

submit their papers for the Smithcors Veterinary History Essay Contest," said Dr. Howard Erickson, emeritus professor of physiology and history of veterinary medicine.

The contest, named in honor of Dr. J. Fred Smithcors for his many contributions to veterinary history as founder of the AVMHS, author of several books on veterinary history, educator, publisher and editor, is open to any veterinary student within the United States, Canada and the West Indies. K-State had the highest representation with 21 entries in the contest.

Pam Davis retires from A&P



Pam Davis

over microanatomy, veterinary physiology

and the behavior of domestic animals. A

reception was held for Pam Jan. 13.

The CVM said "goodbye" to longtime employee, Pam Davis. She worked at the CVM for 30 years in the anatomy and physiology department. Throughout Pam's career, she helped teach more than 3,000 veterinary students in courses

CVM students help raise \$\$\$



Second-year student Bridgette Sharpe turns in a pledge sheet to one of the calling coaches.

CVM students reached out to alumni and friends to help raise money at Telefund 2012, which was held Feb. 5 and 6. The students raised \$56,950 with 482 pledges for the college. Telefund administrators announced in August the program will now be run on a year-round basis.

a critical

Dr. Richard Rahija leads the Animal Resources Center at St. Jude Children's Research Hospital

By Joe Montgomery

mission



Dr. Richard Rahija oversees 100 employees with a budget of \$7.5 million at the Animal Resources Center, a 163,000-square-foot facility at St. Jude Children's Research Hospital in Memphis, Tenn.

Vision and values make up a big part of the driving force behind Dr. Richard Rahija, who

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DANNY THOMAS

graduated with his DVM from K-State in 1974. A love of science has also been instrumental in leading him into his current career as the director of the Animal Resources Center and Associate Member of the Department of Pathology at St. Jude Children's Research Hospital in Memphis, Tenn.

"I have spent the majority of my professional life in biomedical research and I consider my job a gift," Dr. Rahija said. "I believe that I have a personal and professional responsibility for the care and welfare of the laboratory animals that are used in biomedical research. There are many institutions where biomedical research is conducted, but few with a mission like St. Jude, where the importance of quality animal care and how well we deliver it in support of the research programs is so readily apparent to the lives of patients."

St. Jude was opened in 1962 by late entertainer Danny Thomas and has become internationally recognized for its pioneering research and treatment of children with cancer and other catastrophic diseases. Research has played a pivotal role in pushing overall U.S. pediatric cancer survival rates from 20 to 80 percent. "I know there's a direct connection between the outcomes of our research and the care of the children in our clinic," Dr. Rahija said. "When you talk to employees, they will tell you that we have a unique mission and you see it every single day. You're here for one reason and the mission of finding cures and saving children is well-defined and ever-present."

Transition from private practice

Dr. Rahija didn't start out his veterinary career to be a researcher or administrator.

"When I was in veterinary school, I imagined going into private practice and living happily ever after," Dr. Rahija said. "After the first year in private practice, I realized that I needed to consider other career options. I would spend hours at the clinic working up cases because I enjoyed it, but there was something unfulfilling about the routine of private practice and the quality of medicine that clients can afford that motivated me to make a change. I came back to K-State one weekend and ran into Dr. Sam Kruckenberg [the CVM's first director of the Animal Resources Facility]. He told me he had

contacts with companies doing drug development, which led me to joining Pitman-Moore."

After a few years as a clinical research veterinarian,

Dr. Rahija became a senior scientist and experimental surgeon for Ethicon Inc., where he developed medical devices such as surgical staplers and instruments and devices for microsurgery. In order to move forward as a career scientist, Dr. Rahija decided to pursue a Ph.D. in experimental pathology at the University of North Carolina in Chapel Hill. He also co-trained in the university's Division of Animal Laboratory Medicine. His training in laboratory animal medicine at UNC-CH prepared him to obtain board certification in the American College of Laboratory Animal Medicine. "UNC-CH is where I learned laboratory animal medicine," Dr. Rahija said. "In private industry, I did this type of work by default because I was the only veterinarian with clinical experience. Most companies don't have the breadth of an academic laboratory animal medicine program where you work with many different species in biomedical research."

After finishing his Ph.D., Dr. Rahija remained in North Carolina, but at a different university. In 1987, he accepted the position of deputy director of Duke University's Division of Laboratory Animal Resources which supported the research programs of 400 investigators. He was promoted to director in 1993 and remained with Duke for 15 years overall.

A job too good to pass up

Although Dr. Rahija enjoyed his career at Duke, the opportunities at St. Jude were too attractive to pass up.

"The facility at St. Jude was brand new, and I was attracted to running one large facility rather than multiple small facilities spread out

"I believe in persistence and striving for excellence. Mediocrity is not an option, and it will impede the path to discoveries and cures." all over a university campus," Dr. Rahija said. "The philosophy of the hospital and the caliber of science really appealed to me as well. I just fell in love with the culture of the hospital. It's critically important to what we do here. It

doesn't matter whether you're in a private or a public academic institution — it's challenging to get funding. The improvements that make a program strong, I can implement here because we have the resources and commitment to have world-class research."

Now, that Dr. Rahija works in an administrative role, he shares his values and beliefs that shape his approach to running a highly respected research program.

"I believe in persistence and striving for excellence," Dr. Rahija said. "Mediocrity is not an option, and it will impede the path to discoveries and cures. I also believe I must continue to learn not only about laboratory animal science and medicine, but must stay abreast of the new discoveries in medical science. Technology is changing our lives and we must make an effort to keep up."

Additionally, Dr. Rahija truly enjoys the challenges in his position beyond the role of scientific research.

"I come to work every day energized," Dr. Rahija said. "I confront operational issues every day that have the potential to affect our research. Some days I work with mechanical engineers on the maintenance of equipment and the operation of our mechanical systems in the facility. Other days I'm working with the environmental health and safety staff managing potential hazards in the workplace. I wear a lot of different hats."

Sound advice

As for young veterinary students who are weighing different career options, Dr. Rahija offers sound advice.

"Look at all of the options," Dr. Rahija said. "I got a sound foundation in clinical medicine during the years that I spent in private practice that was essential to my career in research. Going to K-State provided me with a broad knowledge base, and I am indebted to the university for the quality of the education I received. It is up to you to find what you like to do and to commit yourself to doing it. Take risks, be prepared for change, and welcome it!"

75th Annual Conference for Veterinarians & Kansas State University College of Veterinary Medicine Alumni Weekend June 1-5, 2013 NEW CONFERENCE LOCATION:

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Dosage and Administration: Inject Subcutaneously in Cattle and Sheep Only. In cattle, administer a single subcutaneous dose of 10 to 20 mg/kg of body weight (1 to 2 mL/30 kg or 1.5 to 3 mL per 100 lbs). In sheep reset than 15 kg, administer a single subctaneous dose of 10 mg/kg of body weight (1 mL/30 kg or 1.5 mL per 100 lbs). Do not inject more than 10 mL per injection site.

If no improvement is noted within 48-hours, the diagnosis should be reevaluated.

For cattle and sheep, injection under the skin in the neck is suggested. If not accessible, inject under the skin behind the shoulders and ove the rihs

Note: Swelling at the subcutaneous site of injection may be observed. Note: Swelling at the subclaneous site of injectual may be observed. Contraindications: Do not use in automatically owered syringes, Do not administer infravenously to cattle or sheep. Do not use in lambs less than 15 kg body weight. Infravenous injection in cattle or sheep will be fatal. Do not daminister to animals other than cattle or sheep. Injection of this antibiotic has been shown to be fatal in swine and non-human primates, and it may be fatal in horses and goats.

Warnings:

nungs: Residue Warnings: Animals intended for human consumption must not be slaughtered within 42 days of the last treatment. Not for use in lactating dairy cattle 20 months of age or loler. Use of limitosin in this class of cattle may cause milk residues. Not for use in lactating ewes producing milk for human consumption

Subcutaneous Use in Cattle and Sheep Only. Do Not Use in For subscurieves use in catte and sneep only, bo not use in Automatically Powered Syringes. Solo Para Uso Subcutáneo en Bovinos y Ovinos, No Administrar con Jeringas Accionadas Automáticamente,

Precautions: Read accompanying literature fully before use. Intramuscular injection will cause a local reaction which may result in trim loss of edible tissue at slaughter. The effects of tilmicosin on bovine and ovine reproductive performance, pregnancy and lactation have not been determined. Adverse Reactions: The following adverse reactions have been

reported post-approval: In cattle: injection site swelling and inflammation, lameness, collapse, anaphylaxis/anaphylactoid reactions. decreased food and water consumption, and death. In sheep: dvspnea and death.

For a complete listing of adverse reactions for tilmicosin phosphate reported to the CVM see http://www.fda.gov/AnimalVeterinary/SafetyHealth/

ProductSafetyInformation/ucm055394.htm

Clinical Pharmacology: A single subcutaneous injection of Micotil at Cunical Pharmacology: A single subcitaneous injection of Micoti E 10 mg/kg of body weight dose in cattle resulted in peak Ultinicosi levels within one hour and detectable levels (0.07 µg/mL) in serum beyond 3 days. However, lung concentrations of tilmicosin remainer above the tilmicosin MIC 95% of 312 µg/mL for Mannheimia haemolytica for at least 3 days following the single injection. Serum tilmicosin levels are a poor indicator of total body tilmicosin. The ung/serum tilmicosin ratio in favor of lung tissue appeared to Lung/serum timicosin ratio in tayor of tung tissue appeared to equilibrate by 3 days post-injection at approximately 60. In a study with radioactive timicosin, 24% and 68% of the dose was recovered from unine and feces respectively over 21 days. After a single subcutaneous injection of Micotil at 10mg/kg of body weight, timicosin concentrations in excess of 4 µg/mL were maintained in the alvedar macrophages and neutrophils of most catils for at least 10 days. The clinical relevance of these findings has not been determined. **Microbioloux**: Timicrisin has an in witro antibacterial spectrum that is Microbiology: Tilmicosin has an in vitro antibacterial spectrum that is predominantly Gram-positive with activity against certain Gram-negative microorganisms. *In vitro* activity against several *Mycoplasma* species has also been observed.

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Going the 1stance

Veterinary student participates in externship with the Iditarod Trail

by Dana Avery

Some call it the "Last Great Race." It challenges the participants mentally and physically. The participants have to travel more than 1,000 miles to reach the finish line. On average, mushers will be pushing their teams for nine to 12 days. Approximately 65 teams enter the race every year, and 1,000 dogs participate. It is known as the Iditarod Trail.

Dr. Stephanie Oursler, DVM 2012, has always wanted to be an Iditarod Trail Veterinarian. Becoming a trail veterinarian is not an easy task. It requires at least five years of veterinary experience and the organization prefers that the veterinarian has sled dog experience. Stephanie did not meet either one of these requirements.

"I contacted the Iditarod organization and asked them if they had opportunities for students and they told me no," Stephanie said. "They can't have students following the trail veterinarians around because it is a race, and students would slow down things. But they said they would forward my e-mail on to the chief veterinarian and see if he had any ideas. He e-mailed me back later and basically told me about two opportunities that were available."

One opportunity was grant research. A student would have to come up with a research proposal involving the race dogs. If the research proposal was accepted, the student would

be allowed to come up and collect samples. The second available opportunity was to perform pre-race exams on the participating dogs.

"I couldn't come up with any research ideas," Stephanie said. "I thought the pre-race exams would be fun and a lot more hands-on. The chief veterinarian told me there could potentially be physical exams on up to 1,500 dogs during the month of February. I would have to be there for approximately three weeks. In order for that to work with my schedule, I had to wait until my fourth year."

The Iditarod Experience

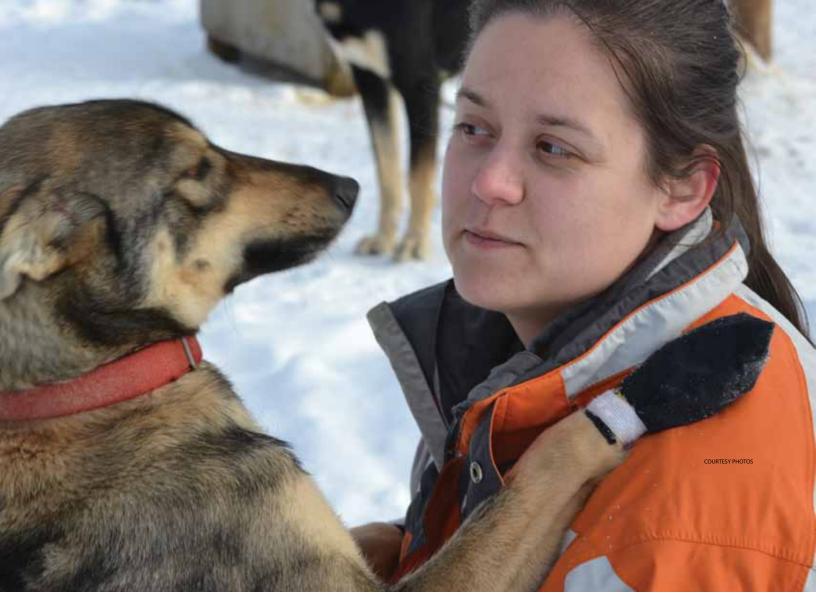
In February, Stephanie traveled to Alaska. She worked with Dr. Stuart Nelson, Iditarod chief veterinarian, to examine dogs before the race. All of the race dog participants receive a physical exam, electrocardiogram, Complete Blood Count, chemistry and an echocardiogram before entering the race. These examinations are important for the mushers and their dogs because the veterinarians are looking for potential health issues that may affect the dog during the race. Stephanie was responsible for reading the blood work during the exams.

"It was a lot of fun to interact with the dogs and then to see their interactions with the mushers and the handlers," Stephanie said. "You could tell that they really love their dogs and care about them. They'll do a lot for them. While they were waiting, you'd see them sitting there and petting them like I would with my dog at home. It was just nice to see that."

Pre-race exams last approximately three weeks. The veterinary teams travel to Fairbanks and Soldotna, but most of the exams are done at the headquarters in Wasilla. The mushers later return to Wasilla for Vet Check Day.

"The Wednesday before the race starts is Vet Check Day," Stephanie said. "On this day, we would check the teams in and match the microchip numbers. The physical exams are also performed. We check the dogs to make sure everything is working okay and to see if the mushers have any concerns for their teams."

Dr. Stephanie Oursler waits with one of the sled dogs. During the pre-race exams, participants receive several tests including physical exams, electrocardiogram, Complete Blood Count, chemistry and echocardiogram.



"It was a lot of fun to interact with the dogs and see them interact with the mushers and their handlers," said Dr. Stephanie Oursler. During the pre-race examinations, Dr. Oursler and the team would see approximately 1,500 dogs in one month.

An Opportunity to Learn

Between the Vet Check Day and Race Day, a conference is held for new veterinarians who are going out on the trail. Several seminars are held to give background information on the lditarod race and the medical information the veterinarians may encounter on the trail.

"During the conference, we had an emergency medicine session in the field," Stephanie said. "This was extremely important because when the veterinarians are out on the trail, there is no X-ray machine, and there is no ability to analyze blood. You really have to rely on your physical exam in what you're seeing and feeling to be able to determine what's going on with the dog when you're out there." There are two days for the Race Day. Thousands of people travel to Anchorage to watch the dogs run by. The actual start of the race is held at Willow Lake and is called the Restart. At this point, the teams will be traveling more than 1,000 miles to the finish line. Stephanie said she enjoyed her experience and hopes that someday she'll be a trail veterinarian for the race.

"I'd really like to stay involved with the Iditarod race," Stephanie said. "I want to continue to build my experience with sled dogs through the pre-race exams. So hopefully after five years, I can say I have this experience with sled dogs, and I still enjoy it."

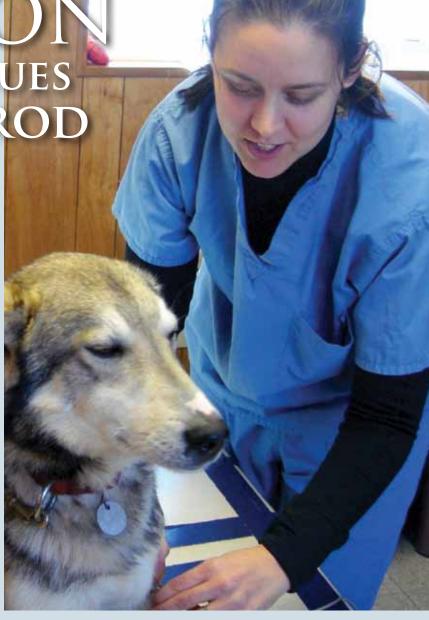
COMMON MEDICAL ISSUES AT THE IDITAROD

The first medical issue veterinarians search for is sled dog

myopathy. It is a muscle condition that can be fatal. During the race, the musher will see the dog collapse in their harness. The musher would then stop and give the dogs a rest and the dog would appear to return to normal. In 10 miles, the dog would collapse again and potentially die. It is described as wide-spread muscle failure. In the early years, it was thought to be a vitamin E deficiency. Through research grants, it has been proven this is not the situation. The condition can be detected during the prerace exams. There is a muscle enzyme called creatine kinase. If the number is above 200 U/L, the veterinarian will talk with the musher and determine possible issues. Sometimes the dog likes to run or just finished a race. Both of these will warrant higher numbers. If the musher says the dog is normal, the dog might be predisposed to develop sled dog myopathy. At this point the chief veterinarian and the musher will discuss whether the dog will participate in the race. Normally the sled dog myopathy will occur during the first half of the race.

The second medical issue veterinarians search for is gastric ulcers. This condition can also be fatal. On the blood work, veterinarians will look at the hematocrit (the percent of red blood cells). If the number is below 42 percent, the veterinarians will talk with the musher about possible issues. It does not necessarily mean the dog has gastric ulcers but it is something to keep an eye on because the dog will lose 1 percent of their hemacrit for every day they are out on the trail.

More common things veterinarians will see while out on the trail are muscle injuries, frost bite, minor cuts or abrasions, pain or soreness. At each check point, a team of veterinarians will



Pre-race exams are important to help lower the risk of illnesses and injuries during the race.

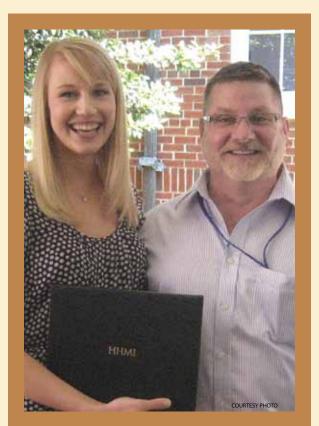
check the dog over for any medical issues. If the musher has any concerns for their team, they can inform the veterinarian at this point as well. All of the mushers have a medical book that has to be signed at each check point.

With all of these issues to consider, mushers are allowed to bring up to 24 dogs to the pre-race exams. Eventually, they will have to select 16 dogs for the race.

'Why I spent a year in a reasearch program' Fourth-year student Ashley Talley takes a 'year off'

By Rebecca Martineau

Although taking a year off for research is a popular, often required, decision for medical students, the opportunity takes a specific type of motivation for veterinary students. For Ashley Talley, now a fourth-year student, it was an opportunity she could not turn down. The Richmond, Va., native came to K-State immediately after receiving a bachelor's degree in biology from the University of Virginia. During her second year at K-State, Ashley learned about a summer research program at the



Fourth-year student Ashley Talley celebrates her gradution from the Howard Hughes Medical Institute Research Scholars program with her mentor, Dr. Tom Wynn, an expert in immunopathogenesis at the National Institute of Allergy and Infectious Disease in Bethesda, Md.

National Institutes of Health (NIH) with an anatomic pathology focus. Ashley's work with the NIH helped point her toward further research with the Howard Hughes Medical Institute (HHMI) Research Scholars program. This particular program would allow medical, dental and veterinary students to conduct biomedical research in a lab on the NIH campus. Once accepted to the research scholars program, participating students chose a laboratory and mentor based on their interests.

What kind of research were you involved in?

After being accepted to the program, I chose to work in a fibrosis laboratory under Dr. Tom Wynn in the National Institute of Allergy and Infectious Disease (NIAID). The lab focuses mainly on the immunopathogenesis of liver and lung fibrosis using a mouse model infected with *Schistosoma mansoni*, a parasitic worm. I worked with others studying how excessive immune responses result in scar tissue formation or fibrosis. During my time in the lab I helped to characterize a potential biomarker of fibrosis, called periostin.

Previous studies have shown that certain asthma patients with high levels of periostin in the blood respond best to specific treatments. We wanted to see if the same was true for liver fibrosis. Also, we wanted to explore the function of periostin throughout the course of disease and determine the mechanisms by which it is regulated.

Why did you choose this program?

I chose to do the program because I wanted to have a more in-depth research experience than I had experienced in the previous part-time or summer positions. This program gave me more time to produce meaningful data and to have more control over the direction of my project. I hope to incorporate research into my future career path.

Would you recommend this experience to other veterinary students?

I definitely would. The program gave me a chance to explore my research interest and to make significant progress on my projects. A lot of the students think I'm crazy for taking a year off and wouldn't want to delay graduation to participate in the program, but it really is an incredible experience that I will never regret. Unfortunately, the exact program is no longer available due to a change in funding. However, a very similar program, HHMI Medical Research Fellows Program is still an option for interested veterinary students.



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Picture Perfect

A brown bear awaits the perfect moment to seize a salmon as it jumps its way up Brooks Falls in Alaska.



Dr. Michael Dryden combines his passions for parasitology and photography

By Joe Montgomery

Facing fleas and ticks is one thing, but facing down a brown bear is an entirely different

matter. Dr. Michael Dryden has put himself in both situations and has survived — with pictures to prove it.

"You often hear the bears before you see them," explained Dr. Dryden, describing encounters he and his wife have had in the



Dr. Michael Dryden is sometimes referred to as 'Dr. Flea' because of his expertise regarding the biology and control of fleas and ticks on dogs and cats.

Grand Teton National Park and in Alaska. "They typically make a lot of noise, and you can hear them snapping twigs as they walk through the forest. We have even had a few encounters at close range where the bears huff and growl. That will make your heart rate increase. Running is the worst thing to do, so if you have someone with you,

it's better to stand side-by-side to make a wide profile. And then you start talking to the bear in a calm voice. It's usually gibberish, but speaking seems to help the animal acknowledge you without assuming a threatening position. Then you slowly back away. We always carry bear spray (a deterrent), but have never had to use it."

Dr. Dryden's interest in wildlife and nature photography stems from his undergraduate days at K-State, when he was majoring in wildlife biology. He and his wife, Joan, have made numerous hiking and photography trips to places such as the Grand Teton, Rocky Mountain, Denali, Katmai and Yellowstone national parks, as well as Banff in Canada and Kruger and Pilanesburg in South Africa.

"As a parasitologist, I've had many invitations to lecture in other countries, which has afforded me the opportunity to take pictures in some very scenic locations," Dr. Dryden said. In addition to wildlife preserves, Dr. Dryden has visited tropical islands in the Caribbean, the Great Barrier Reef and Hawaii, among other places.

They call him Dr. Flea

Dr. Dryden's work in the control of parasites, such as fleas and ticks, has earned him







Dr. Dryden's passion for photography has led him to take pictures in locations such as Alaska, Africa, Canada and Hawaii, as well as taking pictures of fleas and ticks for research purposes.

distinction as a scientist and researcher. It has also earned him the nickname of "Dr. Flea."

"That actually goes back to my college days," Dr. Dryden said. "After I earned my DVM in 1984 at K-State, I worked in both large and small animal practice for a couple of years in Kansas. In 1986, I was accepted into the graduate program at Purdue University's veterinary college, and studied veterinary parasitology and medical/veterinary entomology. While I was a graduate student, the veterinary students started calling me Dr. Flea."

Dr. Dryden earned both a master's degree and a Ph.D. at Purdue. After that, he was offered a faculty position at K-State.

An Avid Researcher

"I've focused my research on three areas," Dr. Dryden said. "The first area is in the biology and control of fleas and ticks infesting dogs and cats. Second, my research team conducts investigations into the interactions and disease transmission of urban wildlife with domestic pets and humans. The third area is in the diagnosis and control of gastrointestinal parasites of dogs and cats."

Dr. Dryden's research team has conducted laboratory and field evaluations of prospective flea and tick products in Manhattan, Kan., and Tampa, Fla. He has authored or co-authored more than 100 journal articles and book chapters. Dr. Dryden has lectured in 21 countries and presented more than 750 invited seminars at national and international meetings.

The flea and tick research has received both national and international media recognition which has led to Dr. Dryden making appearances in segments on Good Morning America, CBS This Morning, the Discovery Channel, Mona Lisa Productions in France, and televised appearances in Canada, England and Spain, as well as numerous newspapers and magazines.

Dr. Dryden's research has changed the veterinary profession's understanding of flea and tick ecology. In addition, the team has developed novel methods for evaluating flea and tick control products and proposed new concepts that revolutionized flea and tick control.

Dr. Dryden has received several awards within the academic and veterinary profession for his work. He has also been recognized by the North Central Branch of the Entomological Society of America and was honored to receive the 2010 Veterinarian of the Year award at the Purina Pro Plan 56th Annual Show Dogs of the Year Awards presented in New York City. In 2011, Dr. Dryden was promoted to University Distinguished Professor.

Read more about Dr. Dryden's research and see more of his stunning photos at www.drmichaeldryden.com.

PART of the PLAN

K-State's first National Academies member: Dr. Jim Riviere

The vision for K-State is bold.

The university president has promoted a goal to make K-State one of the top 50 public research universities by the year 2025. In the veterinary college, reaching this goal has involved implementing a master plan, part of which involves hiring outstanding faculty members. This year will be marked by the hire of K-State's first National Academies member, Dr. Jim Riviere. In August, he was appointed to the MacDonald Professorship in Veterinary Medicine and University Distinguished Professor of pharmacology.

⁶⁶ Being a member provides a base to launch some programs that might shake things up.⁹⁹

"The message that I got excited about is that K-State and the Kansas City Animal Health Corridor is expanding and growing with an animal health focus — and it's an area that is becoming recognized nationally and internationally as the place where progress in animal health happens, so it's great to get involved in that," Dr. Riviere said. "I have learned there is a lot to be done in global food and drug safety, and this is the place to do that."

Dr. Riviere comes to K-State from North Carolina State University where he was the Burroughs Wellcome Fund Distinguished Professor of Pharmacology and the director of the Center for Chemical Toxicology Research and Pharmacokinetics. Dr. Riviere also directs the Food Animal Residue Avoidance Databank (FARAD) with the mission of preventing or mitigating illegal or harmful residues of drugs, pesticides, biotoxins and other chemical agents in foods of animal origin.

"When I joined NCSU, it was unique because of the research triangle," Dr. Riviere said. "The first five to 10 years were very exciting because there was a pulse of things happening. I get the same kind of feeling here with the state of Kansas being so supportive

of veterinary medicine. At NCSU, some lines of research

better fit into the triangle of medical schools, which is fine, but I wanted to focus on animal health, so that's why I'm here now."

Dr. Riviere has been a member of the Institute of Medicine of the National Academies since 2003. He also serves as a committee chair on an Institute of Medicine global food and drug safety study panel.

"Being a member provides a base to launch some programs that might shake things up," Dr. Riviere said. "At K-State, I'm going to be in charge of the Institute for Computational Comparative Medicine, which is really trying to impact the drug and food process. We'll hire about four faculty members and several graduate students over the next couple

CONTINUED|See Riviere, page 30

more **bits**

Dr. Harkin receives inaugural Pritchard Award



A new award has been started in honor of a highly respected alumnus. Dr. Kenneth Harkin was named as the recipient of the 2012 Dr. William and Deanna Pritchard Veterinary Service and Outreach Award. Dr. Harkin is a professor and section head in small animal internal medicine.

This was the inaugural Pritchard Award and will be presented annually, named for Dr. William R. Pritchard, who graduated with his DVM in the class of 1946. He is perhaps best known for serving as the dean of the School of Veterinary Medicine at the University of California, Davis, from 1962 to 1982. Dr. Pritchard earned doctorate and law degrees. His experience in tropical veterinary medicine, international agriculture development, and agriculture and veterinary laws has led Dr. Pritchard around the world. He has gained worldwide recognition as an exceptional veterinarian, educator and authority on international agricultural development as well as veterinary law. He received an honorary doctorate degree from K-State in 1970 and was named the 1986 K-State CVM Alumni Fellow.

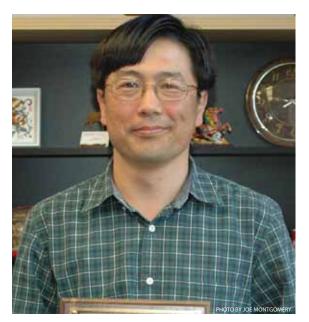
Dr. Kenneth Harkin

Faculty awards put spotlight on top teachers



The 2011 fall teaching awards recognized a very talented group of teaching faculty members. These awards were presented, from left to right: Novartis Third Year Award: Dr. Emily Klocke; Merial First Year Award: Dr. Zsolt Szladovits; Teva Animal Health First Year Award: Dr. Judy Klimek; and Bayer Animal Health Second Year Award: Dr. T.G. Nagaraja.

MORE **BYTES** Pfizer Awards go to Drs. Chang and Stockham



Dr. Kyeong-Ok Chang, associate professor of veterinary virology, receives the 2012 Pfizer Award for Research Excellence. The award is presented to individuals who have performed superbly in research activities at the CVM.



Dr. Steve Stockham, professor of veterinary clinical pathology, is the 2012 Pfizer Distinguished Veterinary Teacher Award recipient. Dr. Stockham began a phased retirement in October 2012.

Kansas Farm Bureau recognizes Dr. Thomson

Dr. Dan Thomson was selected last November as the recipient of Kansas Farm Bureau's Distinguished Service Award at its annual meeting. The Distinguished Service to Agriculture award is presented to individuals who exemplify leadership in agriculture, service to Farm Bureau families and community involvement.

"My heroes are farmers, ranchers and veterinarians working every day to provide food for the world," Dr. Thomson said. "It is an honor to serve the Kansas farmers and ranchers. Kansas Farm Bureau has provided me many opportunities to serve, and I am very humbled to receive this award. I look forward to many years of serving the Kansas farmers, ranchers and veterinarians."

Kansas Farm Bureau's Distinguished Service to Agriculture Award is given in recognition of outstanding service on a national or significant statewide basis in the interest of agriculture. Nominees are selected by the Awards Committee made up of Kansas Farm Bureau board members and the entire Kansas Farm Bureau board of directors approves the selection.



Kansas Farm Bureau President Steve Baccus presents the Distinguished Service Award to the CVM's Dr. Dan Thomson.



Veterinary Medical Alumni Association

Find us online at: www.vet.k-state.edu/depts/alumni

Message from VMAA President, Dr. Justin B. Janssen, DVM 1972



Chances are high that if you are reading this, you have attended one of the many alumni receptions at a major continuing education conference held each year. Your membership in and support of your K-State VMAA helps to support these

receptions, recognize outstanding colleagues, provide opportunities to network and catch up on what is happening at the CVM.

At these gatherings, either at a major meeting or at Cat Town prior to a home football game, you feel the common bonds of veterinary medicine and K-State. At a recent Cat Town, I had the opportunity to visit with a third-year student who is excited to take her career to an international level. I also had a great conversation with a seasoned colleague who remembers his first use of a career "break thru" drug or procedure. I and you too, can learn from both and feel blessed to be part of our respected profession.

I encourage you to first become active in your VMAA with the payment of dues, which adds to the Endowment Fund and helps underwrite these alumni gatherings. Secondly, we seek your input and nominations of fellow K-State colleagues who deserve recognition. We value your suggestions, and we hope you enjoy this opportunity to share with alumni and friends.

About the VMAA

The Veterinary Medical Alumni Association is a nonprofit organization run primarily by alumni who volunteer their time and effort. Members are elected to serve on the association's executive board. Each serves a four-year term as memberat-large, and one year each as president-elect and president. The SCAVMA president serves one year or until his presidency ends. The secretarytreasurer continues to serve without re-election until he/she resigns or an election is mandated.

The VMAA Executive Board established an endowment in February 2003. VMAA membership dues are placed in this fund to generate earnings to support alumni events, initiatives and activities in perpetuity. The VMAA Endowment, account number, K93615, has a balance of more than \$327,000 as of August 2012. A special thank-you to all who have participated in this effort.

We are collecting VMAA membership dues for the 2013 fiscal year.

2012 Class Initiatives

Dr. Roy Braum, right, accepts the Reunion Achievement Award for the Class of 1967 for having the highest participation (45 percent) in cash gifts given among the returning reunion classes for FY 2012. Together the classes raised approximately



\$110,000 for the CVM. Go to the VMAA website listed above and click "Initiatives" for more info.

Executive Board Members

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Dr. Justin Janssen DVM 1972 JustinJanssenDVM@gmail.com

President Elect

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Secretary/Treasurer Dr. Howard Erickson DVM 1959 erickson@vet.k-state.edu Senior Member-At-Large Dr. Julie Ebert DVM 1996 julieebert@twinvalley.net

Members-At-Large Dr. Randall Hobrock DVM 2002 tallgrassvet@sbcglobal.net Dr. Leslie Pelfrey DVM 1991 drpevo@sbcglobal.net

Dr. Kenneth Burton DVM 1981 krburton@ksu.edu

SALUTE IN SAN DIEGO



Several CVM alumni were on hand in San Diego to attend a meeting of the U.S. Army Veterinary Corps held during the AVMA Convention. Dr. Sara Emanuel (left), DVM 2005, was honored at this meeting as the Exceptional Veterinary Corps Officer of the Year. She is joined here by Dr. Heather Serwon, DVM 1996, Dr. Jon Nauss, DVM 2010, and Dr. Zach Mills, DVM 1999.

Alumni Class News

Dr. Wade Taylor, DVM 1980

Kansas Gov. Sam Brownback has appointed Dr. Wade Taylor from Oakley, Kan., to a three-year term on the Kansas Animal Health Advisory Board. Dr. Taylor is a member of the Kansas Livestock Association and a managing partner of Production Animal Consultation LLC. He earned his DVM from K-State in 1980 and a Great Plains Veterinary Educational Center Beef Cattle Certificate from the University of Nebraska. The nine-member Kansas Animal Health Board serves in an advisory role to the Kansas Animal Health Commissioner on policies and actions affecting the livestock industry.

Dr. Bret Rings, DVM 1992

Dr. Bret Rings was awarded the 2011 Outstanding Field Case or Diagnostic Report Award at the annual meeting of the American Association of Avian Pathologists. His winning presentation was entitled, "The Toxicity Effects of Feeding 1-Alpha Hydroxyl D₃ to Broiler Breeding Hens."

Get more news by e-mail with Lifelines



Do you currently receive our monthly newsletter Lifelines by e-mail? If not, visit our website to add your e-mail address for Lifelines and other CVM news.

http://www.vet.k-state.edu/depts/alumni/ forms/newsletter/index.aspx

CVM makes Dr. Sara Mark its 2012 Alumni Fellow



Dr. Sara Mark operates her own practice in Littleton, Colo.

Because of the respect and admiration Dr. Sara Mark, Littleton, Colo., has earned from her colleagues and peers, she was named

the 2012 Alumni Fellow for the Kansas State University College of Veterinary Medicine. She was on campus Feb. 22-23 for a variety of activities. Dr. Mark presented a seminar to the college titled "Dr. Sara Mark: Experiences with Animal Assisted Therapy and Lessons Learned." Dr. Mark also joined other recipients from eight academic colleges, the graduate school and Division of Continuing Education for their award presentations at the Alumni Fellows Award Banquet. The K-State Alumni Fellows program is sponsored by the Dean's Council, President's Office and the K-State Alumni Association.

Dr. Mark, who is originally from Hutchinson, Kan., earned a bachelor's degree at K-State in 1977 with a dual major in life science and physical science and a minor in chemistry. She went on to earn a doctor of veterinary medicine degree in 1983. After graduation, she experienced working as a veterinary associate for three different practices. She became owner of the third, Southwest Veterinary Hospital.

On top her busy veterinary practice, Dr. Sara Mark volunteers her time and expertise for the pet-visitation program "Prescription Pet Program" at Children's Hospital Colorado in Denver. This program consists of dog-assisted therapy and pet visitations with patients. Dr. Mark helped develop a protocol for screening and training pets for entry

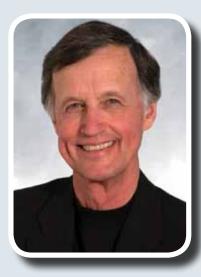
into the program, as well as working with volunteers at the hospital who help handle the dogs that are used. There are other hospitals around the country that use animal interactions to help provide comfort and companionship to patients, but Dr. Mark said the program in Denver is unique due to its training protocol.

"Dr. Mark has set an extraordinary example for future and current veterinarians," said Dean Ralph Richardson. "She has gone beyond and above the call of the duty, especially in reaching out as a volunteer who makes a big difference in her community. We are proud to recognize Dr. Mark with this year's Alumni Fellow award."

Dr. Mark has received many honors and recognitions throughout her career, such as: Children's Colorado Volunteer of the Year in 1991, The Seeing Eye Veterinary Recognition Award in 2009, and the Littleton Independent Best Veterinarian in 2011.

For more on Dr. Mark's extraordinary community outreach, please go to previous articles written in the Fall 2011 issue of Healing Hands: http://www.vet.k-state.edu/depts/alumni/fellows/ HH_Fall2011_Sara_Mark_story.pdf and her story about Darlene http://www.vet.k-state.edu/depts/alumni/fellows/HH_Fall2011_Darlene_by_Sara_Mark.pdf.

Awards from the 73rd Annual Conference for Veterinarians^{*}



2011 Distinguished Alumnus Dr. James Coffman

Dr. James Coffman has distinguished himself among many with his intellect, diplomacy and sincerity. After earning his DVM in 1962, he worked in private equine practice, and was then professor of equine medicine at the University of Missouri where he was also director of the Equine Center. He returned to K-State in 1981 as section head in the Department of Surgery and Medicine. This marked the beginning of his 28-year tenure at K-State where he has served as dean of the College of Veterinary Medicine from 1984-1987 and provost of the university from 1987-2004. Dr. Coffman has authored or co-authored more than 120 scientific papers and two books. Among his many honors, he received the Iverson Bell Award from the Association of American Veterinary Medical Colleges in 2005. In 2010, Coffman Commons was dedicated on the K-State campus in his honor. Dr. Coffman holds emeritus status from K-State and is currently working with the Department of Animal Sciences and Industry to develop an equine-assisted therapy program.



2011 E.R. Frank Award

Dr. Frederick Oehme

Dr. Frederick Oehme was chosen for his many years of dedication (47 years) to teaching at the College of Veterinary Medicine at Kansas State University and his international reputation for excellence in veterinary toxicology and his ability to foster an environment for academic excellence. He is a diplomate for the American Board of Toxicology and the American Board of Veterinary Toxicology and the past president of the Society of Toxicology, American Academy of Clinical Toxicology and the World Federation of Clinical Toxicology and Poison Control Centers. Dr. Oehme served as a fellow for the American Academy of Veterinary and Comparative Toxicology, and is a fellow and diplomate for the Academy of Toxicology Services. Dr. Oehme holds emeritus status at the university and still remains active in his professional activities and mentoring young colleagues when called upon.

* Editor's Note: The awards from the 74th Annual Conference for Veterinarians will appear in the Spring 2013 issue of Healing Hands.

Alumni Recognition Awards



Dr. Carla Carleton (1977) 2011 Alumni Recognition

American Veterinary Medical Association

Dr. Carla Carleton has held a position at Michigan State University as an associate professor of theriogenology in large animal clinical sciences since 1989. She is also board-certified by the ACT and ACAW. She has been involved and held leadership roles in many professional organizations. Among her honors are the Excellence in Teaching Awards from the MSU CVM and Outstanding Woman Veterinarian of the Year Award from the AWVF. Since 1992, she has partnered with equine veterinary practitioners in India, Thailand, Cambodia and Morocco in continuing education and research projects that remain active. Of greatest importance to her are the pony health clinics in northern Thailand and Phnom Penh, Cambodia, that serve rural villagers who are otherwise unable to obtain medical care for their working equids.



Dr. Richard Knewtson (1968) 2011 Alumni Recognition

Central Veterinary Conference

After Dr. Richard Knewtson graduated in 1968, he went to work as a staff veterinarian at the Van Der Loo Animal Hospital in Dubuque, Iowa. He returned to Kansas to become owner of Iola Animal Clinic in 1971. He still works there today. Dr. Knewtson is a member of the AVMA and KVMA, holding many leadership roles in the latter. As Dr. Ralph Richardson said, "He has been not only an active leader in his community, but an exceptional leader in the state at a time when rural veterinarians are becoming a rare commodity." He is currently president of the KVMA Educational Foundation and chair of the KVMA's Public Relations and State Fair committee. For his career achievements, he was awarded the KVMA Veterinarian of the Year in 2007 and the President's Award in 1999.



Dr. Steven Slusher (1970) 2011 Alumni Recognition

American Association of Equine Practitioners

Dr. Steven Slusher has had a long and diverse career in the equine veterinary field. After graduating with a DVM from K-State in 1970, Dr. Slusher received his master's degree from Oklahoma State University in 1984. Following service in the Air Force Veterinary Corps and a short time in private practice, he joined the faculty at OSU as an equine clinician. He also worked during this same period at McConnell Air Force Base in Wichita, Kan. From 2001-2007, Dr. Slusher traveled to the United Arab Emirates to work in the Dubai Equine Hospital. Currently, Dr. Slusher is retired and works part time in a small animal practice in Tulsa and at Will Rogers Downs in Claremore, Okla., as a Track Veterinarian.

Dr. George Saperstein (1978) 2012 Alumni Recognition

North American Veterinary Conference

Dr. George Saperstein has a passion for veterinary medicine that can be seen in the accomplishments he has attained throughout his career. Dr. Saperstein has worked as a faculty member of the Tufts Cummings School of Veterinary Medicine since 1981 after graduating with his DVM from K-State in 1978. He directed the large animal ambulatory service there for 13 years. His major projects include a livestock disease control project in the Middle East and assisting in efforts to collect and freeze germplasm from endangered breeds of livestock. Additionally, Dr. Saperstein has been elected to the Tufts Faculty Hall of Fame, recognized as a Distinguished Practitioner in the National Academies of Practice in Veterinary medicine, and named the Amelia Peabody Chair in Agricultural Sciences.

Dr. William Rishel (1973) 2012 Alumni Recognition

Nebraska Veterinary Medical Association

Dr. William Rishel is well-known for having participated in the Christian Veterinary Mission's student-mentoring weekends for the past 12 years. Through the Christian Veterinary Mission, he has gone on short-term mission trips to Nepal, India, Uganda and Bolivia, as well as taken trips to Navajo, Apache and Lakota Sioux Reservations in the U.S. After graduating from K-State with his DVM degree in 1973, Dr. Rishel joined a mixed animal practice in Plattsmouth, Neb. After a satellite clinic opened in Glenwood, Iowa, he worked at both clinics until 1980. Dr. Rishel has practiced at the Glenwood, Iowa, clinic for 39 years.

Dr. Norman Meriweather (1955) 2012 Alumni Recognition (Posthumous)

Western Veterinary Conference

Dr. Norman Meriweather received his bachelor's degree in geology from K-State in 1943. From 1943-1946, Dr. Meriweather served in the U.S. Army during World War II and was discharged as a captain. He returned to K-State in 1950 and earned his DVM in 1955. After graduating, he joined his brother as a business partner for Meriweather Vet Supply in Miller, S.D., from 1955 to 1978. Dr. Meriweather served as the president of Meriweather Vet supply for more than 15 years, as well as president of the South Dakota Veterinary Association and South Dakota State University Agriculture Advisory Committee in 1969 and 1970, respectively. In 1983 he received the Veterinarian of the Year award. Dr. Meriweather passed away on June 17, 2011.

Read more about these recipients and awards online at www.vet.k-state.edu/depts/alumni/recognition.







Special Remembrances and Fond Farewells

Dr. L.D. "Doc" Jernigan, DVM 1945



Dr. Loyce Derald Jernigan, Council Grove, Kan., passed away May 16, 2012. He received his DVM at K-State in 1945 at the age of 20. "Doc" worked in a federal brucellosis laboratory in North Dakota, and then worked in a small animal

practice in Minnesota for a year before moving back to Council Grove to establish his veterinary practice. He practiced for more than 60 years. Because of this passion, he received several awards: The Kansas Veterinarian of the Year, E.R. Frank Award and KVMA President's Award. There is a L.D. Jernigan Mentor Award named after him and given yearly to a practicing veterinarian. Dr. Jernigan is remembered fondly by many CVM alumni because of his active mentorship of veterinary students.

Dr. Fayne Oberst, DVM 1943

Dr. Fayne Higgins Oberst passed away April 5, 2012, in Palm Bay, Fla. He received his DVM in July 1943 from K-State and a master's degree from Cornell University in 1955. Dr. Oberst held many positions at K-State from



1943-1962 including instructor, assistant professor and professor in the Department of Surgery and Medicine. In 1998, he received the Distinguished Alumnus Award. He was later on the faculty at the University of Missouri, Michigan State University and Oklahoma State University, the latter where he retired and held emeritus status until the time of his death.

Dr. Oberst had been a resident of Barefoot Bay, Fla., since 1985. Dr. Oberst was proceeded in death by his wife, Anne Clarlson Oberst, of 65 years. They had a daughter, Diane Erickson, and two sons: Dr. Richard Oberst and Mark Oberst. Dr. Richard Oberst serves the K-State CVM as a professor of diagnostic medicine.

Dr. Robert Taussig, former instructor

Dr. Robert Allen Taussig ("Dr. Bob") passed away May 21, 2012. He earned his DVM from Colorado State in 1945 and joined the K-State CVM in 1966 as a teaching clinician. During the next six years, he earned a master's degree in urology and was



director of hospital out-patient services.

During a four-year hiatus in Ahmadu Bello University in Zaria, Nigeria, sponsored by USAID, Dr. Bob befriended people of the rural nomadic Fulani tribe. He taught his students by giving on-site care, not only for the Fulani's Zebu cattle herds, but the Fulani children and Fulani wives, as well. Dr. Bob returned to K-State in 1976. He was the section head of Zoological Medicine, and later became the principal veterinarian at Manhattan's Sunset Zoo. During his tenure at K-State, he made important advances in the recognition and treatment of the urinary diseases of cats. He retired from K-State in 1988.

Dr. Dean Folse, former instructor

Dr. Dean Folse, a former CVM faculty member, passed away on May 2, 2012. He earned a bachelor's degree and DVM at Texas A&M University, and then a master's degree in parasitology from K-State in 1946, which was followed by



a Ph.D. in pathology from the University of Texas Medical Branch (UTMB) in Galveston. Dr. Folse was a faculty member at the Veterinary Medical School at Auburn University from 1948-1952, at the K-State CVM from 1952-1966 and at UTMB till 1992. He was an avid reader and stamp collector and a member of the Congregational Church of Manhattan, Kan.

1938

Dr. Grafton Bowers Hamilton, Mo. Sept. 1, 2012

1940

Dr. James Hourrigan Vienna, Va. March 27, 2012

Dr. Leonard Witt Fremont, Neb. March 24, 2012

1941 **Dr. Glenn Duncan** Tyndall, S.D. Nov. 14, 2011

Dr. Gilbert Wilson Carl Abilene, Kan. July 30, 2011

1942 **Dr. Keith Downey** Green Bay, Wis. April 5, 2012

Dr. Edward Jay Mahler Lakin, Kan. June 1, 2012

1943

Dr. Clarence Hostetler Des Moines, Iowa April 3, 2012

Dr. Terrence McDonald Edmond, Okla. March 3, 2011

Dr. Gordon William Vacura Bella Vista, Ark. Sept. 5, 2012

1944

Dr. Charles Riley Arlington, Tex. Nov. 20, 2011

1945

Dr. Laverne Harold Falls Church, Va. Feb. 22, 2012

1947 Dr. Ordella Geisler Lincoln, Neb. April 21, 2012

Dr. Francisco Santiago Hato Rey, Puerto Rico Sept. 13, 2011

Dr. Carl Tague Calimesa, Calif. Oct. 15, 2011

1949 Dr. Margaret Denison-Day 1952 Amherst, Va. March 31, 2012

Dr. Franklin Fishburn Muskogee, Okla. July 18, 2012

Dr. Tom Watson Lavaca, Ark. Nov. 14, 2011

Dr. John Woolsey Santa Rosa, Calif. March 23, 2011

1950 Dr. Andrew Vedros Overland Park, Kan. June 27, 2012

Dr. Robert Weaver Great Bend, Kan. July 12, 2012

1951 **Dr. Raymond Brugger** Overland Park, Kan. March 15, 2011

Dr. Raymond Couk Joplin, Mo. April 29, 2012

Dr. Clovd Lewis Las Vegas, Nev. June 16, 1997

In Memoriam

1951 **Beatrice Liebl** (Wife of Dr. Gus Liebl) Dodge City, Kan. Jan. 20, 2012

Dr. Keith King Lenexa, Kan. Sept. 4, 2010

Dr. Richard L. Warren Winfield, Kan. Nov. 25, 2011

Dr. William Hay Ottawa, Kan. June 1, 2012

Dr Robert Hayes Baldwin City, Kan. May 6, 2012

Dr. Lawrence Morehouse 1958 Columbia, Mo. March 2, 2011

1953 Dr. John Foote Bartlesville, Okla. March 6, 2012

Dr. J.D. Savage Hominy, Okla. July 20, 2011

Dr. Harding Warren Ballwin, Mo. Nov. 1, 2011

Dr. Merle Watts Tucson, Ariz. Dec. 27, 2011

1954 Dr. Howard Frank Bennett Petersburg, Ill. July 15, 2008

1955 **Dr. Larry Barbee** Sutton, Neb. Feb. 29, 2012

1955 Dr. Rollin William Vickery Dr. Tony David Braman, Okla.

Aug. 20, 2012

Dr. Carroll K. Weich Hoskins, Neb. July 13, 2012

1956 **Dr. Perry Schurr** Dennis, Kan. Nov. 12, 2011

1957 **Dr. William Tilgner** North Platte, Neb. Nov. 11, 2011

Dr. Donald Wainscott Tucson, Ariz. July 30, 2012

Karen Bokelman (Wife of Dr. Delwin Bokelman) Doylestown, Pa. April 4, 2012

Dr. William Ketter Hanover, Pa. Dec. 24, 2011

1959 **Dr. Norman Morrow** Salina, Kan. May 1, 2012

1961

Dr. Russel Bieri Jamestown, N.D. April 19, 2012

1963 **Dr. Rodney Oliphant** Offerle, Kan. Sept. 19, 2012

1965 **Dr. Jack Anderson** Columbus, Neb. May 9, 2012

1966

Fort Walton Beach, Fla. Jan. 7, 2012

Dr. Thomas Kuhn Sacramento, Calif. June 7, 2012

1970

Dr. Jack Spencer Fair Oaks, Calif. Jan. 26, 2012

1972 **Dr. Merle Raida** Kingman, Kan. Jan. 10, 2012

1973 **Dr. Patrick Dean Duncan** Richland, Neb. Aug. 19, 2012

Dr. Fred Johnson Ottawa, Kan. July 24, 2012

1975

Dr. Michael Herndon Wichita, Kan. June 17, 2012

1977

Dr. Colleen O'Keefe (MS) Springfield, Mo. June 16, 2012

1977

Dr. Michael Skinner Willmington, Ill. May 9, 2012

1999

Dr. Emilie Bohannon Rogers, Ariz. Nov. 15, 2011



By Carol Elmore

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Carol Elmore can be contacted directly for articles through e-mail at libresearch@vet.ksu.edu or at 785-532-6006. She does literature searches on a fee basis if you wish not to conduct your own searches. Carol's services are listed at http:// www.vet.k-state.edu/depts/library/info/research. services.htm.

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Riviere | Research focus continued from page 16

years, all who will really be focused on mathematical modeling — the computational medicine. We've done a lot of modeling work with pigs, but right now we want to push into beef and the residue aspects of food safety. This really provides a good area to work with at K-State because there are a lot of specialists here who work in that area."

Dr. Riviere is also joined at K-State by his wife, Dr. Nancy Monteiro-Riviere, who has been a professor of investigative dermatology and toxicology in the Department of Clinical Sciences at North Carolina State. At K-State, she is a Regents Distinguished Research Scholar and University Distinguished Professor in the Department of Anatomy and Physiology in the veterinary college. She specializes in nanotoxicology and will direct the Nanotechnology Innovation Center of Kansas State (NICKS).

The Rivieres have had intertwining careers and both studied at Purdue University, where they earned doctoral degrees.

"Actually my Ph.D. adviser at Purdue was Dr. Gordon Coppoc, a Kansas State graduate. When he found out we were coming here he was just laughing, 'This is great!" Dr. Riviere said. "He's a really good scientist and he helped shape my philosophy on working with graduate students. What is different between now and years ago is that you don't do research on your own. Discoveries are made by teams of people so you have to figure out how to work on a team and contribute to a team."

While Dr. Riviere is just now building his research team, he hopes to get things up and running by spring 2013. In the meantime, the CVM is very excited to welcome both Jim and Nancy to its team, and keep moving forward to 2025.

What? A gift that gives back?

Thousands of alumni have supported the College of Veterinary Medicine since Dean

Ralph Richardson returned in 1998. Most gifts arrive via check, but other gifting tools provide multiple donor benefits. One in particular — the Charitable Gift Annuity — actually gives back. Often called a CGA, it may be just what the doctor ordered.

What's best for you if you have decided to create a K-State legacy? Several factors should be weighed, but the list of benefits makes the CGA an attractive alternative — and a CGA gives back.

A CGA is a guaranteed contract to pay lifetime income to the donor. Payments are based on the donor's age when the gift is made, continue for life and never change. When the gift is made, you work with our staff to decide where the remaining funds go. You decide what program, project or area within our college will be "home" to your legacy.

> Are there other benefits? Yes, several in fact. Using proceeds from a maturing lowyielding certificate of deposit to fund a CGA will provide a higher payout, a generous charitable deduction, plus guaranteed and fixed lifetime income. Highly appreciated stocks are another outstanding CGA funding tool, with all the previous benefits plus the advantage of reduced or favored capital gains tax.

> > How about another twist? CGA income can be deferred until some point in the future. For example, the gift is made before Dec. 31, but income can be deferred 15 years to provide another source of retirement income.

Depending on the asset used to fund your CGA, some income could be tax-free and payments can continue for one or two lives. Eventually, the principal is directed to the area, program or project most important to you.

If you have decided to

create a KSUCVM legacy, the "best" method of funding that goal might be a CGA. Alumni often include their spouse and their financial adviser when selecting their "best" option. For more information — or a personalized CGA illustration — please contact the College of Veterinary Medicine development staff.

These charts reflect fixed annuity amounts that increase with donor age. Contact the College of Veterinary Medicine development staff for a personalized illustration.

Information for a single person: male or female

Age	60	70	80
Annuity rate	4.4%	5.1%	6.8%
Charitable deduction	\$6,456	\$9,752	\$12,270
Annual payment	\$1,100	\$1,275	\$1,700
Tax-free portion	\$770	\$958	\$1,354

Information for a couple

Ages	60/60	70/70	80/80
Annuity rate	3.9%	4.6%	5.7%
Charitable deduction	\$4,925	\$7,419	\$10,638
Annual payment	\$975	\$1,150	\$1,425
Tax-free portion	\$678	\$857	\$1,131

PLEASE NOTE: These examples are for illustrative purposes only and are not intended as legal or tax advice. Charitable deductions will vary slightly with changes in the Internal Revenue Service discount rate. Rate used here is 2 percent. Consult your adviser before making any decisions based on this data. This illustration represents a \$25,000 cash gift and a 28 percent income tax rate. The charitable gift annuity is not offered in all states.



Development and Alumni Office

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Is the \$50 annual fee tax-deductible? Yes. A tax receipt will be sent for the payment to the college.

Do I reorder my Pet Friendly license plate each year? No. About six weeks before your tag expires you can expect to receive a renewal notice from us. Return it with the annual fee of \$50. A payment voucher will be sent in the mail to you. Present the voucher to your county treasurer's office to renew your plate.

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