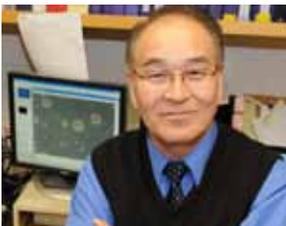




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Dr. Chandrasekar Raman goes Under the Microscope.
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Lethal Ingestion

Diagnostic Lab analyzes blue-green algae in dog deaths

Warning signs have been showing up during the summer of 2011. Several lakes and ponds in Kansas have been reporting contamination from toxic blue-green algae. Recently, three dogs were fatally poisoned from exposure to the algae at Milford Lake. A fourth-dog survived after treatment at the Kansas State University Veterinary Medical Teaching Hospital, but will require further monitoring and special care.

Also known as cyanobacteria, blue-green algae may bloom in fresh water where environmental conditions make it possible for these organisms to grow and replicate rapidly. Conditions that are typically associated with blue-green algae blooms include warm weather, lots of sunlight, and the presence of nutrients in the water, which are often associated with agricultural run-off.

Dr. Deon van der Merwe, assistant professor and head of the toxicology section in the Kansas State Veterinary Diagnostic Laboratory, warned, "Any time you have an algae bloom, you have a potential for poisoning, which happened with these dogs. Two of them were admitted to the intensive care unit at the teaching hospital." Unfortunately, both of these dogs died despite aggressive attempts to treat them.

"Some types of blue-green algae produce neurotoxins that can lead to muscle spasms,



Ali Mahdi, Ph.D. student in toxicology, takes water samples at the River Pond at Tuttle Creek State Park, near Manhattan.

convulsions, weakness and paralysis," Dr. van der Merwe said. "Death can occur due to paralysis of the muscles used for breathing. People who are exposed to contaminated water while swimming, boating or skiing often develop skin rashes, eye irritation and respiratory symptoms."

Water samples for blue-green algae identification can be submitted to the Kansas State Veterinary Diagnostic Laboratory. When collecting a water sample, the laboratory recommends using gloves to prevent skin contact. Samples should be shipped to the laboratory in an insulated box with a cold pack. For more information, please contact the Kansas State Veterinary Diagnostic Laboratory at 866-512-5650.

First-year students attend CVM orientation



Dr. Wally Cash walks students through a practice class session during orientation. This allows students to get acquainted with new technology.

The class of 2015 began their new school year with a constructive project. During their three-day orientation, the incoming students built towers and participated in several activities designed to introduce class members to the CVM and each other.

“Today we did some ice-breaking, team building activities, sort of learn where everyone is from, learn people’s names, some strategy planning and then building towers of cardboard boxes and duct tape, which was entertaining,” said Billy Cole, first-year student. “Our group wasn’t all that successful but we at least had a good time and got to

know each other.”

Orientation started Aug. 17 with a welcome session to students and family that included greetings from administrators.

“This is a new education experience for each of these students,” Associate Dean Dr. Ronnie Elmore said. “They’ve never attended veterinary school before so orientation is all about helping them get a good start, helping them learn the ins and outs of veterinary school.”

For more in-depth coverage, check out the online video report at: www.vet.k-state.edu/depts/development/lifelines/1109.htm.

Targeting a cure: Researching lung cancer treatment

A Kansas State University professor is trying to create a patient-friendly treatment to help the more than 220,000 people who are diagnosed with lung cancer each year.

Dr. Masaaki Tamura, associate professor of anatomy and physiology, and his research team are working on several projects that use nanoparticles to treat and directly target the “bull’s-eye”: cancer cells.

It’s estimated 156,940 people will die from lung-related cancer this year, according to the American Cancer Society. Lung cancer-related deaths are higher than the next three common cancer-related deaths combined: colon, breast and pancreatic cancers.

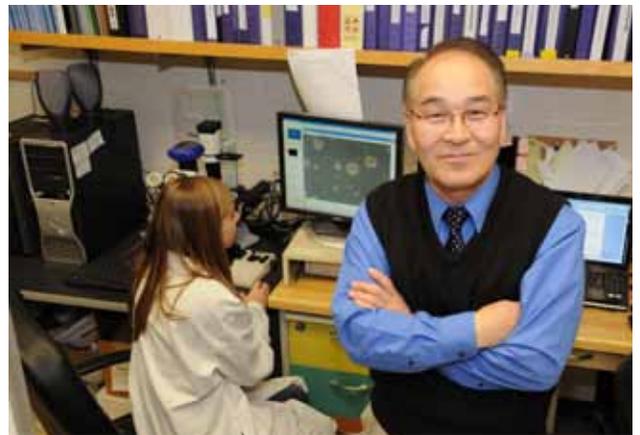
Given lung cancer’s high mortality rate, Dr. Tamura has focused his research on peptide nanoparticle-based gene therapy, which is the process of treating diseases by introducing therapeutic genes. His research team is collaborating with University of Kansas researchers to develop a way to treat cancer other than current chemotherapy practices.

“We want to generate a safe patient-

friendly therapy,” Dr. Tamura said.

Cancer develops from our own bodies, Dr. Tamura said, which makes it very difficult for traditional chemotherapy to distinguish cancer cells from healthy cells. As a result, chemotherapy often kills both cancer cells and healthy cells, which is why patients often experience whole body reactions to treatment, such as hair loss, diarrhea and vomiting. If the chemotherapy treatment damages intestines, it often has fatal consequences for patients.

Dr. Tamura has found the potential for safer therapy in cationic peptide nanoparticles. This small peptide helps transfer an important gene called angiotensin II type 2 receptor, which helps to maintain cardiovascular tissue. By attaching this receptor gene to peptide nanoparticles, Dr. Tamura hopes to create



Dr. Masaaki Tamura has been researching several different cancer treatments. “This is very exciting because our own immune system can prevent cancer growth,” he said.

a form of treatment that can directly target cancer cells without damaging healthy cells.

“The peptide itself is a very safe material and it has no harmful effects,” said Dr. Tamura, who is one of the first researchers to use the peptide for cancer treatment. “The gene is actually already expressed in our body — everybody has this gene.”

CVM teams up at Sunset Zoo to provide chimp's annual physical

A female chimpanzee's reproductive difficulties were the focus of a routine veterinarian visit at the Sunset Zoo. Dr. Bonnie Catterson, a local OB/GYN, and cardiologist Dr. Annika Linde, joined faculty and students from CVM on Sept. 1 to examine Hasusa, Sunset's 19-year-old female chimpanzee, as part of her routine physical. Led by Dr. James W. Carpenter, professor of zoological medicine, the students were part of the university's fourth-year clinical rotations in exotic animal, wildlife and zoo animal medicine class that supports veterinarian care to Sunset's 250-plus animal residents.

"As a nationally accredited zoo, we are committed to providing the highest quality of care to our animal residents," said Scott Shoemaker, zoo director. "Our partnership with K-State has been crucial to our ability to do this and it's exciting that we are shaping the next generation of zoo veterinarians."

The examination went well and Hasusa is now fully alert in her exhibit. For the safety of both the animal and medical professionals, Hasusa was anesthetized for the entire examination; standard protocol when completing veterinarian procedures on larger, exotic animals. In addition to receiving the normal check-up, Dr. Catterson collected a variety of samples to help determine why Hasusa is struggling to carry pregnancies to full-term. Sunset Zoo's partnership with Dr. Carpenter and CVM dates back to 1989. Under Dr. Carpenter's guidance and assistance from several veterinarians, students spend a three-week



Fourth-year student, Ashley Smit, performs dentistry on Hasusa, one of Sunset Zoo's chimpanzees, as part of her exotic animal medicine clinical rotation. Photo courtesy of Sunset Zoo.

rotation at the zoo, gaining experience in the care of exotic animal species.

When disaster strikes: Conference addresses animal care

Sixty-two percent or nearly two-thirds of U.S. households have an animal.

But while pets are part of the family,



Dr. Christen Skaer, Wichita veterinarian and DVM 1999, gathers medical supplies during an emergency response training exercise held at the 2011 Annual Conference for Veterinarians. Dr. Skaer is one of the presenters at the upcoming CE conference on natural disasters and animals.

they're not always part of the family's emergency management plan, said Dr. Ronnie Elmore, associate dean of the College of Veterinary Medicine at Kansas State University.

When disaster strikes, a beloved pet can easily become separated from its family, said Dr. Elmore, who is teaming with animal scientists, veterinary medical, family life professionals, extension educators, emergency management specialists and survivors, including one who can literally "bark" from experience, to offer the free one-day seminar, "Natural Disasters: What About the Animals?"

The 2011 Human-Animal Bond Conference will be 8 a.m. to 4 p.m. Saturday, Sept. 24. The session will be in Forum Hall in the K-State Student Union, and will also

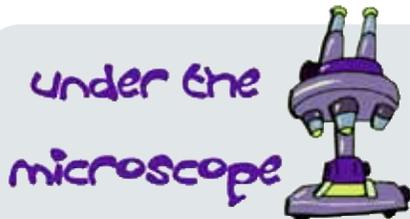
be simulcast at the K-State Olathe campus and webcast here.

While no one plans to have an emergency or for such separations to occur, Dr. Elmore noted that in the '93 flood in Manhattan, about 160 small animals and family pets were displaced and sheltered at K-State's veterinary college until homes could be found.

A number of horses and larger animals also were sheltered during the disaster, he said.

The Sept. 24 seminar will provide information about natural disasters and how to protect animals during such events.

Animal owners; public safety personnel, such as police, fire fighters, health care providers, emergency management; staff of pet-related organizations; extension educators; and university staff and students are encouraged to attend.



Dr. Chandrasekar Raman

Post Doctoral Fellow, A&P



Hometown: Tiruchirappalli, Tamilnadu (India)

Family Information: My wife is planning on doing a master's degree, and my parents and in-laws are in Tiruchirappalli.

Pets: I would love to have one.

What is your favorite quote? "Small truth has words which are clear, great truth has great silence." – Rabindranath Tagore

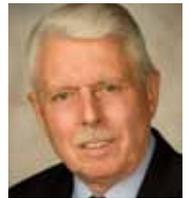
What is your favorite restaurant? I like to order biriyani from the Anjappa Restaurant in India.

What is something you look forward to at the beginning of the day? Pleasant morning — smiling wife with a cup of tea.

What do you find most exciting about starting a new school year? It reminds me of my school days.

CVM NEWS TICKER

Dr. Richard Knewton, DVM 1968, was presented with a 2011 Alumni Recognition Award at the Central Veterinary Conference in Kansas City, Mo., Aug. 27.



The cover of the Aug. 15 issue of JAVMA is by Dr. Nick Schroeder, DVM 2002. JAVMA notes Dr. Schroeder drew inspiration for "In Flight II" from a photograph of an Arabian mare. He completed the piece in 1999, probably when he was a student at K-State. Dr. Schroeder is the staff cardiologist at Veterinary Specialists of South Florida in Cooper City.

Congratulations to **Tonya Collop**, DVM 2007, **Shelby Hayden**, DVM 2002, **Candace Jacobson**, DVM 2007, **Kendra Rock**, DVM 2002, and **Justin Voge**, DVM 2008! They became board certified theriogenologists in August. There were only 18 people who became board certified.

Dr. Judy Klimek, presented at the meeting of the American Association of Veterinary Anatomists at Cornell University on Aug. 6-8. Her two topics were: "Using a course message board to promote active learning and practical application of content in a veterinary anatomy course" and "Using group exams to enhance learning in gross anatomy."

Students help at Dodge City rodeo



KSU VMTH Equine Field Service attended the Dodge City rodeo, Aug. 2-8, where students helped provide emergency services and toured the sale barn. Pictured left to right: Andra Long, Kristin Britton, Janelle Scott, Dr. David Ripple, DVM 1972, and Dr. Chris Blevins.

UPCOMING EVENTS

Sept. 17 - Cat Town - KSU vs. Kent State at 4:00 p.m.

Sept. 24 - SCAEP Fall Equine Conference: A Focus on Reproduction*

Sept. 24 - Human-Animal Bond Conference*

Sept. 28 - World Rabies Day

Oct. 1 - Cat Town - KSU vs. Baylor, two hours before kickoff

Oct. 7 - Annual Fall Conference

Oct. 8 - Cat Town - KSU vs. Missouri, two hours before kickoff

*Continuing Education Events, visit:

<http://www.vet.ksu.edu/CE/Conference.htm>

lifelines is published each month by the Development and Alumni Affairs Office at the College of Veterinary Medicine. The editors are Joe Montgomery, jmontgom@vet.k-state.edu, and Dana Avery, dlaavery@vet.k-state.edu. Read online at www.vet.k-state.edu/depts/development/lifelines/1109.htm

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