

Dr. Nagaraja gets \$1 million to study E. coli



Dr. T.G. Nagaraja examines a laboratory sample. His research on E. coli O157:H7 was recognized by being awarded with a grant of nearly \$1 million.

Despite years of scientific research on E. coli O157:H7, Dr. T.G. Nagaraja, professor of microbiology, says there is still much we don't know about the food-borne, disease-causing bacterium which has been the cause of human illnesses, and in the last two years several million pounds of ground beef recalls. However, with nearly \$1 million in grant funds from the USDA National Research Initiative in Food Safety, Dr. Nagaraja is hopeful that new research will lead to a better understanding of the possible connection between E. coli O157:H7 and feeding of distiller's grain in cattle.

Distiller's grain, a byproduct of the ethanol production process, is used as a

feed supplement for cattle. In 2005, during an unrelated study, Dr. Nagaraja and his co-workers observed a possible link between distiller's grain feeding and increased presence of E. coli O157:H7 in cattle feces. He and his team then began to investigate their observations in a series of four studies, three of which found a statistically significant link between feeding distiller's grain and increased E. coli O157:H7 presence.

This major finding has prompted a whole new string of questions and possibilities concerning the presence, transmission and containment of E. coli O157:H7 bacteria. Dr. Nagaraja's team of researchers on the project hopes to find answers to some of these questions.

The research team includes Megan Jacob, a Ph.D. student in pathobiology, Dr. David Renter, assistant professor in epidemiology, Dr. Mike Sanderson, associate professor in production animal medicine and Dr. Dan Thomson, associate professor in production animal medicine and a feedlot nutritionist.

In December 2007, Dr. Nagaraja and Dr. Dave Renter submitted a grant proposal for an in-depth study on the relationship between distiller's grain feedings and E. coli O157:H7. The million dollar grant was awarded in June 2008. The studies will continue for the next three years, and all studies will take place in commercial feedlots under controlled experiment settings. Funds from the grant will cover the cost of the study and a graduate student scholarship.

Megan Jacob, Dr. Nagaraja's current graduate student, is confident their research will have a positive impact. "The work we are doing will hopefully benefit the food animal industry by leading to a better understanding of the ecology of E. coli O157:H7 in its primary reservoir, resulting in a safer food supply and improved human health," she said.

"The ultimate goal is to have no E. coli O157:H7 in cattle," Dr. Nagaraja said. "Before we can come up with an effective intervention strategy, we must know as much as possible about the organism and sources of contamination of human food supply. This study will shed more light on this important problem."



Get more lifelines online!

Additional stories and photos are posted online @ <http://www.vet.k-state.edu/depts/development/lifelines/0810.htm>

- Developing Scholars Program welcomes a special visitor
- Cat Town pictures



CVM hosts Veterinary Corps training



A regional training conference for the Army Veterinary Corps was held at the CVM on Monday, Sept. 21. Here, Dr. Rex Brennan, retired Colonel, speaks to the group on meat science and food safety. The Army Veterinary Corps provides animal medicine and food safety services for all branches of the military. The conference was organized through the Division of Continuing Education by Linda Johnson, Dr. Chuck Dodd and Capt. Amanda McGuire.



Exotics Conference Coming Soon

K-State CVM students, faculty and staff are invited to attend the 15th Mid-Western Exotic Animal Medicine Conference scheduled for Nov. 1-2, 2008. The conference will provide an update on the medicine, diagnostic techniques, and surgical procedures used in companion birds, reptiles, rabbits, and other small exotic mammals. An optional wet lab on clinical and surgical techniques in reptiles, an interactive master class on behavior of small mammals, and a "behind the scenes" tour of the Sunset Zoo will be offered.

Guest conference speakers include Dr. Doug Mader, Marathon (Fla.) Veterinary Clinic; Dr. Teresa Bradley-Bays, Belton, Mo.; and Dr. Connie Ketz-Riley, Oklahoma State University. K-State conference speakers include Drs. James W. Carpenter,

Gary West and Judilee Marrow.

K-State CVM Students, Faculty and Staff registration form and conference schedule can be found at:

<http://ww2.vet.k-state.edu/Intranet/ce/pdf/2008/Exotics.pdf>

Come to the VMCE office, 1 Trotter Hall, if you have questions and to register.



Veterinary Career Opportunities Workshop

Oct. 31 - Nov. 1, 2008
at the Clarion Hotel

This workshop will enhance your job seeking techniques. You will have the opportunity to meet with practitioners who are looking for students interested in mixed animal practice. The workshop will:

- Enhance interview skills.
- Provide a clear understanding of job expectations from attending practitioners.
- Provide networking opportunities and a forum for meeting interested potential employers.

Schedule for Students

Friday, Oct. 31:

- 4:30 Interview skills for students
 - 5:00 Reception/dinner, expectation panels, interview skit
- #### Saturday, Nov. 1:
- 8:00 Student interview preparation
 - 8:30 Continental breakfast
 - 9:00 Speed interviews
 - 12:00 Conclusions/Lunch

There is no cost for CVM students to attend, but you DO need to pre-register by noon, Thursday, Oct. 30. You will need to provide a resume with your registration so we can have it copied and ready for the speed interview sessions on Saturday.

For a printable registration form, visit www.vet.k-state.edu, click on Continuing Education, click on K-State Student, Faculty and Staff Conference Information and click on the Veterinary Career Opportunities Workshop. Return form to the CE office, 1 Trotter Hall.

Check it Out

at the Library

Mal Hoover: Medical Illustrator

By Carol Elmore

Mal Hoover, a member of the Veterinary Medical Library DISC Services, recently passed the qualifying exam to become a certified medical illustrator. The certification exam is the first and most difficult step in the certification process that has been established and administered by the Board of Certification of Medical Illustrators for the Association of Medical Illustrators.

A full day was set aside at the Association's Annual Conference for the testing. Most medical illustrators who receive certification have degrees in medical illustration, but Mal has received her skills on the job here at the College of Veterinary Medicine.

All of Mal's hard work on the job was evidenced by her score of 91 percent on the core questions section of the exam which tested her in the areas of basic science, gross human anatomy, illustration, anatomical drawing, surgical drawing, graphic arts as well as other topics in the field.

After receiving her bachelor's degree from K-State with an emphasis in pre-veterinary

medicine, Mal started working at the veterinary college in 1980 working with Kay Conkwright, the college's first full-time medical illustrator, in the Teaching Resources department of the college, which later became the Instructional Technology Center.

Mal's two semesters in human anatomy class and work in the human cadaver lab as an undergraduate gave her opportunities to observe anatomical structures. She also spent many hours in the necropsy laboratory at the College of Veterinary Medicine observing various intricacies of animal anatomy. Over the years she perfected her illustration skills and has worked with many veterinary professors

on illustration projects.

The next step for Mal will be to submit a portfolio of her work to the certification board to demonstrate her illustration abilities. Eight pieces of illustration that specifically cite the subject, viewing audience, medium used, references consulted, and other requirements will be submitted for review.

Prior to Mal's application for certification, all other medical illustrators seeking certification have been human medical illustrators. The board will permit Mal to submit anatomical animal drawings and will have them examined by qualified veterinary anatomists. Future veterinary medical illustrators will have an easier time applying for their certification due to Mal's



Mal Hoover

certification endeavors. Once her portfolio is submitted to the board it will take about four months for the board to evaluate her illustrations.

Ethics is an important aspect of certification and Mal was required to sign a confidentiality agreement to not reveal any testing questions or specifics. Certified medical illustrators must also agree to not plagiarize any other illustrators' work as well as

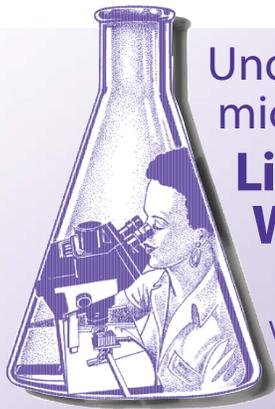
comply with other practices in their code of ethics.

Mal is involved daily in many illustration projects as well as teaching computer applications in her work with the Digital Instruction, Support and Creative (DISC) Services group. Feel free to contact her for graphic design and illustration requests.

Congratulations Mal!



Mal has passed the first requirement to becoming a certified medical illustrator.



Under the microscope:
Linda Rae Walden Rohs

VMTH Business Office



Place of birth: Binghamton, N.Y.

Family information: I have a son, Frederick, and three grandchildren: Devon, Lilian and Finnegan.

Pets: Border Collie: Max; 3 Cats: Callie, Willow and Pippin; Guinea Pig: Poppy; and an aquarium of fish.

Favorite thing about fall: The colors and the cooler temps.

What do you enjoy most about your job? Interacting with staff, clinicians, veterinary students and public. Being helpful!

Life theme song: A Picture of God's Grace and Mercy in Human Form.

Something not many people know about you: I grew up on a dairy farm in New York and showed Holstein Cattle. My roommate and I were the first women accepted into the dairy animal husbandry program at Cobleskill Ag and Tech.

If money were no object, what would you do with your life?
I would open a no-kill (except for humane reasons) animal sanctuary and spend more time with my grandchildren.

CVM News Ticker

Dr. Greg Gauer spoke Sept. 20-23 at the American Association of Feline Practitioners Meeting in Atlanta, Ga.

Dr. David Anderson spoke Sept. 24-27 at the American Association of Bovine Practitioners (AABP) in Charlotte, N.C., on the topics of troponin, biosecurity, pain/stress and standards of surgery.

Dr. Hans Coetzee also spoke at the AABP meeting on the topic of measuring and managing pain associated with bovine castration.

Dr. Kathleen Hanlon was recently featured in a podcast spotlight on the World Rabies Day initiative. The podcast can be heard at www.petliferadio.com. On the right side of the page under "Shows," click "The Pet Doctor," and scroll to the podcast titled "World Rabies Day."

Dr. Doug Powell has been quoted extensively in Canadian television, radio and print on a listeriosis outbreak in deli meats which has killed 18 and sickened more than 60 in August and September. He warned customers, especially pregnant women and the elderly, about the hazards of refrigerated, ready-to-eat foods.

Dr. Powell was also widely quoted on the FDA's approval of irradiation for spinach and iceberg lettuce, saying irradiation was an additional tool that can help reduce the threat of foodborne illness, and should be made available at retail so customers can choose.

Mark your Calendars:

December 5:
2nd Annual
Conference for Llama
and Alpaca Owners

December 12:
Small Ruminant
Conference

Congratulations

to the Division of Continuing Education!
Their program, VetBytes, was selected to receive the 2008 Great Plains Regional, Non-Credit Program Award.

new arrivals welcome

- Taryn Oliver - VMTH
- Justyne Hughes - VMTH
- Kathleen Emig - VMTH
- Kristin Miller - VMTH
- Dr. Katherine Stenske - Clinical Sciences
- Dr. Heather Towle - Clinical Sciences
- Theresa Boatman - VDL
- Sara McCawley - VDL
- Let Wang - A&P

recent departures thanks

- Feng Pan - DM/P
- Theresa Boatman - VDL
- Dr. Safiqul Chowdury - DM/P