



Veterinary Research News

Global News

Dog dies of avian influenza

Fatal avian influenza in a dog is the subject of a dispatch from Thailand that appeared in the November issue of the journal *Emerging Infectious Diseases*.

In October 2004, the Faculty of Veterinary Medicine at Kasetsart University received the body of a dog for necropsy. The owner said the dog had eaten duck carcasses from an area with reports of highly pathogenic avian influenza H5N1 infections in ducks. The dog developed high fever, panting, and lethargy about five days after eating the ducks and died the following day.

Case reports and research have provided evidence that H5N1 avian influenza can cross species barriers to infect cats as well as humans. Domestic cats and tigers have contracted the H5N1 virus after eating poultry harboring HPAI. Earlier this year, Germany reported fatal avian influenza in domestic cats (see *JAVMA*, April 15, 2006, page 1165). In Asia, large cats in captivity have died of the disease.

Genetic comparison indicated that the dog isolate of the H5N1 virus was similar to the viruses that researchers recovered from a tiger in Thailand during a mid-2004 outbreak.

The authors conclude that, like cats, dogs are at risk for H5N1 infection. They add that the possibility of humans acquiring the H5N1 virus from contact with cats or dogs is a cause for concern and highlights the need to monitor domestic animals during future outbreaks of H5N1 avian influenza.

Informational Resources

Horse deaths associated with unapproved drug

An unapproved clenbuterol product associated with two horse deaths in Louisiana has prompted the Food

and Drug Administration to remind veterinarians and horse owners that no generic versions of the drug are approved for use in animals.

The unapproved product is labeled Clenbuterol HCl, according to a statement issued Nov. 24 by the FDA Center for Veterinary Medicine. The agency has confirmed at least two deaths associated with the "super potent" product at Louisiana State University's veterinary hospital, and an investigation is under way, added an FDA spokesperson.

Three ill horses recently treated at the veterinary hospital all tested positive for clenbuterol, but only one had very high concentrations of the drug in its system, said Dr. Rebecca S. McConnico, an assistant professor of veterinary medicine at the university. Two of the horses were euthanized and one recovered, said Dr. McConnico, who has heard unconfirmed reports of three additional clenbuterol-related fatalities in Louisiana.

Ventipulmin, manufactured by the Missouri-based Boehringer Ingelheim Vetmedica Inc., is one of just two prescription clenbuterol medications approved by the FDA as safe and effective for use in horses. Boehringer Ingelheim also makes Aeropulmin, an approved private-label clenbuterol product for distributor customers.

Horse owners and veterinarians aware of horse injuries or deaths that may have resulted from Clenbuterol HCl are urged to contact the FDA office in their area. Following is a link to a listing of FDA consumer complaint coordinators: www.fda.gov/opacom/backgrounders/complain.html.

For years, the FDA has been concerned about the availability of illegal clenbuterol formulations, produced as "compounded" drug products. Compounding is permitted by the Animal Medicinal Drug Use Clarification Act only under limited circumstances.

Biosecurity

Congress strengthens law against animal rights extremists

One of the last acts of the 109th Congress was passing the Animal Enterprise Terrorism Act, which makes it a federal crime to harass or commit violence against companies or persons associated with animal enterprises, such as laboratories, circuses, and pet stores. Following the Senate's lead, the House of Representatives passed the legislation with bipartisan support Nov. 13, and President Bush signed it shortly afterwards.

The new law closes loopholes in the current Animal Enterprise Protection Act that were exploited by animal rights extremists, according to the National Association for Biomedical Research, which championed the bill supported by the AVMA.

One such loophole is tertiary targeting, or third-party targeting, which happens when property damage, violence, or threats of violence are committed against businesses or individuals having a relationship with an animal enterprise. Animal rights extremists have adopted this tactic as a means of putting a particular research laboratory out of business. Violators of the law would face prison, restitution, and fines.

The Humane Society of the United States, People for the Ethical Treatment of Animals, and American Civil Liberties Union have criticized the bill as being overly broad and criminalizing First Amendment activities, such as demonstrations, leafleting, and undercover investigations.

FAO center to rapidly respond to disease outbreaks

The Food and Agriculture Organization established a Crisis Management Centre at its Rome headquarters

to respond to avian influenza outbreaks and other major animal health or food health emergencies. The center is set up in collaboration with the World Organization for Animal Health (OIE).

The CMC operates around the clock, seven days a week, with a staff of up to 15 experts and veterinarians. Disease information is monitored and updated from around the globe continuously. When a suspected outbreak is reported, the CMC can dispatch its experts to any "hot spot" in the world in under 48 hours, according to FAO.

The United States has provided more than \$5 million and three veterinarians for the CMC, the FAO reported. Other contributors include Germany, France, Sweden, Switzerland, Norway, Saudi Arabia, China, Greece, and Jordan.

To learn more about the Crisis Management Centre, log on to the FAO Web site at www.fao.org, and click on H5N1 Avian Influenza under Knowledge Forum.

Proposals Invited

Applications due soon for student research program

Morris Animal Foundation has issued a call for applications for its 2007 Veterinary Student Scholars program. The program provides veterinary students an opportunity to become involved in veterinary research targeted at enhancing the health and well-being of companion animals and wildlife. Awards are open to all first- through third-year veterinary students from an AVMA- or other agency accredited college or school of veterinary medicine in their country.

The Veterinary Student Scholars program will award approximately 25 students with \$4,000 stipends in 2007. Applicants must devote a minimum of 50 percent of their time to the project for the equivalent of a 10- to 12-week period. Funding for the program comes from donor-restricted gifts.

Applications for the Veterinary Student Scholars program are due

Feb. 6 to Tobie McPhail, Morris Animal Foundation, 45 Inverness Drive East, Englewood, CO 80112-5480. More information on the program can be found online at www.morrisanimalfoundation.org.

From the AVMA

Search continues for new AVMA executive vice president

The search for the successor to AVMA Executive Vice President Bruce W. Little, who is retiring Dec. 31, 2007, continues on schedule. The search committee established by the AVMA Executive Board is in the process of reviewing applications received by the Oct. 15, 2006, deadline.

A consultant has been retained to assist the search committee in selecting the best candidate to be the AVMA's chief administrative officer. More than 250 AVMA stakeholders were invited to comment on what they consider important attributes for the next executive vice president. Stakeholders include members of the AVMA House of Delegates and Executive Board; chairs of AVMA councils, committees, and task forces; industry; heads of state VMAs; affiliated organizations; and key AVMA staff. The consultant is currently interviewing those interested parties to garner their feedback.

"Our goal is to find a worthy successor to Dr. Little, who will continue to lead AVMA and meet the needs of our members and stakeholders," said Dr. Larry M. Kornegay, Executive Board member and search committee chair. Also on the committee are Drs. Robert E. Hertzog, Deborah T. Kochevar, James H. Brandt, and Michael L. Whitehair.

Dr. Little joined the AVMA staff in 1985. He was promoted to assistant executive vice president in 1986, and was named executive vice president in January 1996. Dr. Little, in July 2006, announced his plan to retire to give the Executive Board ample time to choose his successor.

AVMA avian influenza FAQ updated

The AVMA has released an extensive, updated version of fre-

quently asked questions about avian influenza, available at www.avma.org/public_health/influenza/avian_faq.asp. The document was last updated in April.

The questions are broken into five categories: General Information about Avian Influenza, FAQ about AI and People, FAQ about AI and Companion Animals, FAQ of Special Interest to Veterinarians, and FAQ of Special Interest to Our Physician Colleagues.

Additional information and resources are provided via links to a number of Web sites.

Review of the related science and policy is continuing and future updates to the document will be posted as they become available.

Nominations sought for third seat on AVMA research council

A third seat on the AVMA Council on Research has become available, and nominations postmarked by Feb. 1 will be considered.

The latest vacancy is a result of Dr. Gerald Parker's resignation from the council, on which he represented veterinary medical research. (Two of the open seats represent veterinary medical research). Dr. Parker's successor will serve the remainder of his term, which expires in July 2008, and then can run for a full six-year term.

The AVMA House of Delegates will fill a total of 15 council vacancies when it convenes this July in Washington, D.C. Those vacancies are listed online at www.avma.org/noah/members/councils/council_vacancies_nominees.pdf.

Nominating materials for councils—including instructions for publishing biographic sketches of the candidates in the 2007 Campaign Guide—were sent in August to AVMA delegates and chief staff officers of organizations represented in the HOD.

Others may obtain council and committee nomination forms on the AVMA Web site, www.avma.org/about_avma/governance/default.asp, or by calling AVMA headquarters at (800) 248-2862, Ext. 6651 for councils, Ext. 6605 for committees.

Council nominations must be postmarked by Feb. 1, 2007, and sent to Dr. Bruce W. Little, AVMA executive vice president.

Education council schedules site visits

The AVMA Council on Education has scheduled site visits to schools/colleges of veterinary medicine at nine institutions for 2007.

Site visits are planned for Oregon State University College of Veterinary Medicine, Feb. 4-8; Massey University Institute of Veterinary, Animal, and Biomedical Sciences, March 11-15; North Carolina State University College of Veterinary Medicine, April 1-5; University of Minnesota College of Veterinary Medicine, April 22-26; University of Calgary Faculty of Veterinary Medicine, June 17-21; Mississippi State University College of Veterinary Medicine, Oct. 7-11; Virginia-Maryland Regional College of Veterinary Medicine, Oct. 20-25; and University of Utrecht Faculty of Veterinary Medicine, Nov. 4-8.

The consultative site visit of St. George's University School of Veterinary Medicine originally planned for October 2006 has been rescheduled to Feb. 18-22, 2007.

The council welcomes written comments on these plans or the programs to be evaluated. Comments should be addressed to Dr. Donald G. Simmons, Director, Education and Research Division, AVMA, 1931 N. Meacham Road, Suite 100, Schaumburg, IL 60173-4360. Comments must be signed by the person submitting them to be considered.

Research Results

Genetics research aids scrapie eradication

Scientists with the Agriculture Department's Agricultural Research Service have developed genetic tests to more accurately diagnose scrapie in sheep.

According to the ARS, government researchers have amassed a detailed body of knowledge allowing them to test sheep for scrapie susceptibility with great accuracy. With that information, breeders can select

less-susceptible sheep and breed more scrapie-resistant flocks.

Scrapie costs U.S. sheep producers an estimated \$20 million annually, and its eradication is the industry's top priority.

Genetic predisposition to scrapie is related to variations in amino acid sequences encoded within each sheep's DNA. Selective breeding for resistance could one day reduce the genetic risk of developing scrapie and may eventually eradicate it, according to the ARS.

Drawing from a diverse group of U.S. sheep, researchers have resequenced the prion gene, identifying a new genetic variation. This achievement, the ARS states, has improved commercially available genotyping tests and enhanced the government's National Scrapie Eradication Program. Essentially, this research is improving the speed, cost, and quality of anti-scrapie breeding methods.

The scientists have identified and stored DNA from 15 common sheep breeds. This information is freely available to researchers and testing laboratories to facilitate diagnosis and eventual scrapie eradication.

Chlorate compound suppresses microbes in animals

A compound developed by scientists at the Agricultural Research Service, part of the Department of Agriculture, could help reduce the risk of *Salmonella* and *Escherichia coli* O157:H7 infection from meat or poultry products.

Researchers at the ARS Food and Feed Safety Research Unit in College Station, Texas, mixed a chlorate-based compound into livestock feed or water two days before slaughter. When fed at roughly 0.5 percent to 5 percent of an animal's diet, the powder like additive was effective in reducing concentrations of *Salmonella* and *E coli* O157:H7 in the animal's gastrointestinal tract, according to the researchers.

The ARS has patented the technology, and the researchers are working to further develop it to make it ready for approval by regulatory agencies.

Funding Announced

Researchers to study transmission of avian influenza

Researchers at the Colorado State University College of Veterinary Medicine and Biomedical Sciences recently received \$2.6 million from the Centers for Disease Control and Prevention to study how interactions between humans and birds may lead to more widespread transmission of avian influenza.

The three-year study will focus on Western states and on central Indonesia. Officials have not detected highly pathogenic H5N1 avian influenza in the United States, but the virus has infected birds and humans in Indonesia. The researchers will track how birds enter Western states and how humans interact with birds in this area where backyard flocks are numerous. Researchers also will study human-bird interaction in central Indonesia and the effects of substandard avian vaccines in the region.

Dr. Richard A. Bowen of CSU is the principal investigator. Other researchers include Drs. Kathe E. Bjork, Kristy L. Pabilonia, and Hana Van Campen.

AKC foundation funds vision research

The AKC Canine Health Foundation has announced a \$24,777 grant for a research study by Dr. David Wilke of The Ohio State University titled "Capsular ring effect on canine lens epithelial migration and post-operative lens capsule opacification."

The leading complication of cataract surgery in dogs and humans is posterior capsular opacification. Dogs cannot be treated for this condition with laser surgery, as humans can. As an alternative for preventing or decreasing PCO in dogs, the researchers will place a capsular tension ring within the lens capsule with the intraocular lens implant at the time of cataract surgery.

Grayson-Jockey offers new equine research award

The Grayson-Jockey Club Research Foundation recently

announced that a division of the Johnson & Johnson Consumer Products Company will underwrite the foundation's first Elastikon Equine Research Award.

The contribution from Johnson & Johnson will fund research in the orthopedic field. The foundation will select the recipient of the award from among the projects approved by the Grayson-Jockey Club's board of directors.

The Grayson-Jockey Club Research Foundation annually underwrites approximately 20 projects aimed at promoting health and soundness in horses.

Research in Progress

Auburn to study treatment for lymphoma in dogs

Auburn University has received \$1.4 million from the National Cancer Institute at the National Institutes of Health to study a new therapy for lymphoma in dogs.

Researchers plan to modify a nonreplicating virus, administer the virus to dogs with lymphoma, and administer a drug to the dogs. The virus will infect lymphoma cells and then encode a protein to convert the drug into a toxin to kill the cells.

Lymphoma is the third most common cancer in dogs. Average life expectancy for dogs undergoing chemotherapy is about one year. Without any treatment, life expectancy is about two months from the time of diagnosis.

The grant from the National Cancer Institute covers two years of laboratory work and three years of clinical trials.

Dr. Bruce Smith, with the College of Veterinary Medicine's Scott-Ritchey Research Center, is leading the study. Auburn co-investigators include Drs. Curtis Bird, Mary Lynn Higginbotham, Annette Smith, and Elizabeth Whitley.

The Veterinary Community

Surgeons receive honors from world association

The World Small Animal Veterinary Association recently presented awards to Drs. Dale E. Bjorling (IL '78) and D.L. Millis (COR '87).

Dr. Bjorling was the recipient of the WSAVA Waltham International Award for Scientific Achievement. He is chairman of the Department of Surgical Sciences at the University of Wisconsin-Madison School of Veterinary Medicine. His research focuses on diseases of the urinary tract. Dr. Bjorling serves on the Board of Regents of the American College of Veterinary Surgeons.

Dr. Millis received the WSAVA Iams Paatsama Award in recognition of his clinical and scientific achievements elevating the profile of orthopedic surgery and patient rehabilitation. He is chief of surgery at the University of Tennessee College of Veterinary Medicine, where he also works with the college's certificate program in canine rehabilitation. He is a diplomate of the American College of Veterinary Surgeons.

Zoo names hospital for veterinary professor

The Sacramento Zoo recently named its new veterinary hospital in honor of Dr. Murray E. Fowler (ISU '55), a professor emeritus at the University of California-Davis School of Veterinary Medicine.

Dr. Fowler has been a pioneer in zoologic medicine, developing a zoo residency program and helping organize the American College of Zoological Medicine. He also is an expert on camelids and a specialist in toxicology and internal medicine.

Research awards conferred

Following are winners of the 2006 Pfizer Animal Health Award for Research Excellence at 27 veterinary schools. The Pfizer award

recognizes researchers whose innovative studies have advanced the scientific standing of veterinary medicine.

Pfizer Animal Health Award for Research Excellence

Valery Petrenko, DVM, Auburn University
Alan Conley, PhD, and Reen Wu, PhD, University of California-Davis
Brian Foy, PhD, Colorado State University
Alexander Travis, VMD, PhD, Cornell University
Cynda Crawford, DVM, PhD, University of Florida
Julie M. Moore, PhD, University of Georgia
Eric Vimr, PhD, University of Illinois
Bruce Schultz, PhD, Kansas State University
Joseph Francis, DVM, PhD, Louisiana State University
Katheryn D. Meek, DVM, Michigan State University
Mitchell Abrahamsen, PhD, University of Minnesota
Shane Burgess, BVSc, PhD, Mississippi State University
Derek B. Fox, DVM, PhD, University of Missouri-Columbia
Anthony T. Blikslager, DVM, PhD, North Carolina State University
Thomas E. Wittum, PhD, The Ohio State University
Richard Eberle, DVM, Oklahoma State University
Beth Valentine, DVM, PhD, Oregon State University
Margret L. Casal, DVM, PhD, University of Pennsylvania
Chang H. Kim, PhD, Purdue University
Darryl L. Millis, DVM, University of Tennessee
George Lees, DVM, Texas A&M University
John E. Rush, DVM, Tufts University
Levent Dirikolu, DVM, PhD, Tuskegee University
Sharon G. Witonsky, DVM, PhD, Virginia Maryland Regional College of Veterinary Medicine
Henk Granzier, PhD, Washington State University
Peggy Barr, DVM, PhD, Western University of Health Sciences
Christopher Murphy, DVM, PhD, University of Wisconsin-Madison