Veterinary Research News

Biosecurity

Homeland Security recommends Kansas site to replace Plum Island

The Department of Homeland Security is recommending Kansas State University as the site of the National Bio and Agro-Defense Facility for the study of foreign animal and zoonotic diseases that can affect livestock.

The AVMA is backing federal legislation to establish the NBAF. The high-security facility will replace Plum Island Animal Disease Center on Plum Island, N.Y., the only location in the United States for research on the live virus that causes foot-and-mouth disease. Homeland Security has oversight of Plum Island, while the U.S. Department of Agriculture conducts the research there on foreign animal diseases.

In early December, Homeland Security's Science and Technology Directorate released the final environmental impact statement for the NBAF. The directorate will publish a formal record of decision in mid-January. Facility design will begin this year, with construction to begin in 2010. Plans call for the NBAF to be operational by 2015.

"This facility, once built, will help us to protect our livestock industry, food supply, and public health from the accidental or intentional introduction of a foreign animal or zoonotic disease in the U.S.," said Jay Cohen, Homeland Security undersecretary for science and technology. "The assessment process was extensive, engaging experts within and without the government as well as each potential site community, and this final report carefully weighs the input from all interested parties."

According to Homeland Security, the existing facility on Plum Island is too small and too old to meet new research needs. The facility also is not appropriate for research on zoonotic disease at biosafety level 4, according to the department. Homeland Security plans to close the existing facility on Plum Island once the NBAF is operational.

The final environmental impact statement analyzes the potential risks of building the NBAF at six possible locations: Athens, Ga.; Manhattan, Kan.; Madison County, Miss.; Granville County, North Carolina; San Antonio, Texas; and Plum Island, N.Y. The report also assesses the alternative of not building a new facility. During the evaluation period, Homeland Security held 16 public meetings and received hundreds of comments.

The report lists the strengths of the Kansas site as including proximity to existing research capabilities and workforce—notably at Kansas State's veterinary college, agriculture college, and Biosecurity Research Institute. Almost all environmental impacts fell into the "no impacts to minor impacts" category. The site would be among the least expensive for construction and operating costs, taking into consideration contributions from local consortia. The NBAF also had strong community acceptance.

"This might very well be the most important thing that has happened to Kansas State University in the entire history of the university," said Jon Wefald, PhD, president of the university. "Never before in the history of Kansas has a national federal laboratory of this magnitude been sited in the state. We are talking about a half-billion-dollar animal health facility that will be the finest laboratory of its kind in the entire world."

The NBAF also could be beneficial to the animal health companies that have clustered in a wide area around Kansas City. A recent initiative has promoted the region as the Kansas City Animal Health Corridor.

Additional details about the NBAF are at www.dhs.gov/nbaf.

Global News

DeHaven addresses veterinarians at global animal welfare conference

The AVMA CEO said veterinarians worldwide have the opportunity and obligation to help animal owners, caretakers, handlers, and policy makers understand the complexity of animal care decisions and improve animal welfare.

Dr. W. Ron DeHaven delivered the comments at a global animal welfare conference Oct. 20-22 in Cairo, Egypt, where he and Dr. Gail C. Golab, director of the AVMA Animal Welfare Division, were among more than 400 veterinarians, government officials, humane group representatives, and industry representatives who met to discuss animal welfare standards.

He also encouraged veterinarians to back standards that are driven by science, with appropriate consideration given to the environments in which they are being implemented.

The conference was the second global animal welfare meeting for the World Organization for Animal Health, the first having been held in 2004 in Paris. The recent meeting was focused primarily on implementing OIE standards in developing countries.

Dr. DeHaven was invited to present a paper on the veterinary profession's role in implementing OIE standards, and he emphasized in his presentation that there are no better advocates for animals than veterinarians. He also encouraged development and implementation of animal welfare standards that include considerations of human needs, environmental concerns, and economic realities.

Dr. DeHaven talked about the roles veterinarians could fill in implementing standards in developed and developing countries. In doing so, he invoked consideration of animals' physiologic, safety, and psychologic needs.

The conference theme was "Putting the OIE Standards to Work,"

and attendees reviewed the state of implementation of standards for transporting livestock, slaughtering animals for human consumption, and killing animals to control disease.

Public Health

Symposium highlights NIH program for veterinarians pursuing PhDs

The National Institutes of Health recently held a symposium to highlight its joint training program with five veterinary colleges.

The Comparative Biomedical Scientist Training Program Symposium took place Oct. 2-3, 2008, on the NIH campus in Bethesda, Md.

The event featured research by veterinarians who have been pursuing doctoral degrees through the NIH Graduate Partnerships Program. The National Cancer Institute launched the veterinary training program in 2003, and four other NIH institutes joined. The NCI has partnered with the veterinary colleges in Illinois, Indiana, Maryland, Michigan, and North Carolina.

Ten veterinarians are training in the program. This year, Drs. David Caudell and Mark Hoenerhoff were the first veterinarians to complete their doctoral degrees through the program. They presented their dissertation research during the recent symposium.

The event included remarks or presentations by NIH scientific directors as well as associate deans for research and other faculty from the veterinary colleges.

Also relevant to the veterinary training program, the NCI recently recognized Dr. R. Mark Simpson with the 2008 Leading Diversity Award for recruiting and mentoring African-American veterinarians and veterinary students. Dr. Simpson is head of the NCI Laboratory of Cancer Biology and Genetics Molecular Pathology Unit and founding director of the NIH training partnerships with the veterinary colleges.

From the AVMA

Veterinary students key part of AVMA board agenda

Executive Board Chair David McCrystle navigated the board through some 200 agenda items, Nov. 13-15.

More in-depth coverage of the board meeting appears online in the Dec. 15, 2008, and Jan. 1, 2009, issues of *JAVMA* News at www.avma.org Following are some of the noteworthy board actions from the November meeting. The board:

- approved participation in the North American Veterinary Medical Education Consortium to study possible implementation of recommendations from the 2007 report titled "Envisioning the Future of Veterinary Medical Education: The Association of American Veterinary Medical Colleges Foresight Project, Final Report"
- approved funding for a Student AVMA legislative visit to Washington, D.C., in spring 2009
- approved increasing the amount of AVMA sponsorship of the SAVMA Educational Symposium
- approved active pursuit of amending Section 108 of the Internal Revenue Code of 1986 to exempt loan payments under the Veterinary Medicine Loan Repayment Program
- approved eliminating print and CD-ROM versions of the AVMA Membership Directory & Resource Manual
- approved providing emergency funding for the Food Animal Residue Avoidance Databank at $5,000 on the condition other FARAD stakeholders also contribute
- approved active pursuit of legislation in the 111th Congress to move the Food Animal Residue Avoidance Databank from the Department of Agriculture Cooperative State Research, Education, and Extension Service to another federal government agency
- approved the revised policy on "Ear Cropping and Tail Docking of Dogs"
- amended and approved the revised policy "The Objectives and Key Elements Needed for Effective Electronic Identification of Companion Animals, Birds, and Equids"
- approved the policy on "Funding of the New Animal Drug Application (NADA) Approval Process," which will supersede the policies titled "New Animal Drug Application (NADA) Approval Process" and "User Fees for Sponsors of New Animal Drug Applications"
- approved the revised policy "Withdrawal of FDA Approval for Animal Drug Products"
- approved a recommendation that all AVMA communication vehicles be developed and reviewed to project a diverse, open, and welcoming environment to the public and AVMA membership
- approved initiating a Bylaws amendment to change the term of the AVMA vice president from a one-year term to a single two-year term
- approved active pursuit of defeat of H.R. 6598, The Prevention of Equine Cruelty Act of 2008
- approved active pursuit for introduction and passage of legislation addressing unwanted horses and related AVMA concerns in the 111th Congress
- approved the policy "Global Climate Change and Animal Health"

Additionally, the board recommended actions on several resolutions the AVMA HOD will consider at its winter session in January in Chicago. Recent revisions to the AVMA Bylaws allow business to be conducted at the session.

The resolutions, along with the board's and House Advisory Committee's recommendations on them, can be viewed by clicking on "About the AVMA" on the AVMA Web site (www.avma.org).

AVMA comments on regulation of genetically engineered animals

The AVMA recognizes the benefits of genetically engineered animals as well as the welfare concerns, according to comments that the Association submitted to the Food and Drug Administration and Department of Agriculture.

In late 2008, the FDA solicited input on draft guidance regarding requirements for developers of GE animals and products from GE animals. The USDA requested comments on potential complementary actions.

The AVMA response reads, in part: "The development and implementation of appropriate regulation of this technology has widespread applications in advancing our knowledge of

diseases, food safety, environmental conservation, and efficient food and fiber production."

The Association also noted the need to protect animal welfare in the development and delivery of GE technology.

"Welfare concerns related to GE include, but may not be limited to, abnormalities in embryonic development and death in utero; abnormal, variable, unexpected or uncontrolled expression of inserted genes; and the large number of donor, recipient, and breeding animals involved and their ultimate disposition," according to the AVMA.

The AVMA urged all federal agencies with oversight of GE animals to work with the Department of Agriculture to ensure that regulations and policies for enforcement of the Animal Welfare Act are sufficient to address GE technology—particularly because the act does not cover certain animals that are common subjects of genetic engineering.

Voluntary programs at public institutions and private companies have closed some of these gaps in coverage. Furthermore, the FDA's draft guidance includes requirements relevant to product safety and effectiveness that would protect the welfare of GE animals, such as a requirement to provide information about potentially disruptive DNA sequences.

AVMA survey measures income trends through 2007

Veterinarians' incomes continued to increase from 2005-2007, though few expect incomes to increase as much from 2007-2009.

At the end of 2007, veterinarians earned more in private practice than in many areas of public practice—and men still earned more than women.

Income figures for 2007 come from the most recent Biennial Economic Survey, which the AVMA conducted this past spring to collect data from the previous calendar year. The AVMA released the survey results in late November.

While the survey may not reflect the current economic climate, it does provide hard figures for veterinarians' incomes every two years going back to 1984. The most recent results confirm that long-term trends continued from 2005-2007.

Mean income of private practitioners rose from $105,510 in 2005 to $115,447 in 2007. The median income for private practitioners was about $91,000 in 2007. The median was $121,000 for owners and $79,000 for associates. At the 90th percentile, owners earned $285,500 and associates earned $127,000.

Practitioners who worked exclusively with food animals earned the highest median income, $109,000. The most dramatic increases in median income from 2005-2007 were in mixed animal practice, with a mean annual growth rate of 11.7 percent, and exclusively food animal practice, with a mean annual growth rate of 9.4 percent.

The mean incomes of veterinarians in public practice or corporate employment covered a wide range. Veterinarians in industry earned the highest mean income, $165,668, while veterinarians in the uniformed services earned the lowest, $87,393.

Veterinarians in state or local government earned a mean income of $96,651, while veterinarians in the federal government earned a mean of $102,997. The mean income was $107,676 for veterinarians in academia.

The income gap between the genders is wider in private practice than in public or corporate employment. Men earned a mean of $138,633 in private practice, while women earned $91,551. Men earned a mean of $133,489 in public or corporate employment, while women earned $103,745.

Veterinarians with board certification earn much more than veterinarians without board certification. In private practice, mean income was $167,862 for specialists and $111,674 for nonspecialists. In public or corporate employment, the mean was $140,893 for specialists and $106,681 for nonspecialists.

The Biennial Economic Survey collected data not only on veterinarians' incomes but also on business measures, such as practice revenues and expenses. Statistics from the survey appear in the 2009 editions of the AVMA Report on Veterinary Compensation and the AVMA Report on Veterinary Practice Business Measures.

The AVMA has released the reports in book form and in PDF files for download. Reports are available for purchase by calling the AVMA at (800) 248-2862 or visiting www.avma.org/products/resource.

Education council schedules site visits

The AVMA Council on Education has scheduled site visits to schools/colleges of veterinary medicine at eight institutions for 2009.

Comprehensive site visits are planned for the Texas A&M University College of Veterinary Medicine & Biomedical Sciences, Jan. 11-15 (rescheduled from Sept. 2008); University of Guelph Ontario Veterinary College, Feb. 1-5; University of Pennsylvania School of Veterinary Medicine, Sept. 13-17; Murdoch University School of Veterinary and Biomedical Sciences, Sept. 27-Oct. 2; and Calgary University Faculty of Veterinary Medicine, Oct. 25-29.

Consultative site visits are scheduled for the Universidad Autónoma de Baja California Instituto de Investigaciones en Ciencias Veterinarias, April 19-23; University of Liverpool Faculty of Veterinary Science, May 3-7; and University of Copenhagen Faculty of Life Sciences, June 14-18.

The council welcomes written comments on these plans or the programs to be evaluated. Comments should be addressed to Dr. David Granstrom, Director, AVMA 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.

EPA pharmaceutical survey not for veterinarians, AVMA says

The Environmental Protection Agency recently invited comments on an upcoming survey the agency plans to conduct on disposal methods of unused pharmaceuticals (*JAVMA*, Oct. 1, 2008, page 1029). The draft study included a questionnaire pertaining to veterinary hospitals. This prompted Dr. Lyle P. Vogel, AVMA assistant executive vice president, to comment on behalf of the Association.

The 16-page document the AVMA sent to the EPA on Nov. 10 stated that inclusion of veterinary medicine in the questionnaire wasn't necessary and recommended the removal of veterinary facilities from the survey because "the expense and effort put into surveying veterinary facilities is not commensurate with the veterinary profession's contribution of unused pharmaceuticals into the water."

An important recognition is that veterinary facility operations are vastly different from parts of the human health care sector, according to the AVMA document. The minimal environmental impact of the veterinary profession's disposal practices is based largely on the business practices of serving mostly outpatients and dispensing drugs for in-home use, practices that are different from those used by some human hospitals and by long-term care facilities.

Full comments can be found on the AVMA's regulatory advocacy page by going to the "Environmental issues" section and clicking on the "Unused pharmaceuticals study" link.

The AVMA already has relevant policies on environmental responsibility and guidelines on companion animal care, veterinary prescription drugs, and veterinary wastes, which are accessible in the Issues section of its Web site, www.avma.org.

The AVMA also is currently cooperating with an EPA contractor to develop a Web-based Veterinary Environmental Compliance and Assistance clearinghouse providing federal and state regulatory information on veterinary waste, including pharmaceutical disposal.

In addition, the Association has initiated a procedure to develop best management practices on proper disposal of veterinary medical waste. Anticipated to be completed in the spring/summer of 2009, the practices will address environmental responsibility and include specific guidance on items such as employee training, record keeping and inventory control, transfer of unused pharmaceuticals back to pharmaceutical distributors, and best management of de minimis unused pharmaceuticals.

Funding Announced

Morris Animal Foundation supporting animal health studies

Morris Animal Foundation is funding research on subjects ranging from blood disorders in dogs to maintenance of genetic diversity in Tasmanian devils.

Tobie McPhail, director of scientific programs and advancement for Morris Animal Foundation, said MAF is spending more than $5 million in the current year on some 200 studies involving domestic and wild species. The foundation has committed more than $10 million to those studies over multiple years.

David Riggs, MAF study sponsorship coordinator, said donors added more than $1 million in funding to studies sponsored by the organization in 2008. Sponsors can direct their donations toward species-specific studies or studies of specific health threats that could affect or have affected numerous species.

This year's new and ongoing studies will be conducted at nearly 50 veterinary colleges, zoologic institutions, and scientific research centers. The studies include research on conditions affecting household pets all the way to wild species such as hippopotami and endangered coral.

To read more about studies sponsored by Morris Animal Foundation or to support the research, visit www.morrisanimalfoundation.org/studies or call (800) 243-2345.

Regulatory Actions

FDA revokes planned extralabel cephalosporin use ban

The Food and Drug Administration decided in late November against implementing a ban on extralabel cephalosporin antimicrobial use in food animals.

The AVMA spoke out against the final rule in late October 2008 through a letter to the FDA signed by Dr. Lyle P. Vogel, AVMA assistant executive vice president, for Dr. W. Ron DeHaven, AVMA CEO. The letter stated, in part, that the ban was well-intended, but the FDA should delay implementation to assess the risks and benefits of using cephalosporin antimicrobials in an extralabel manner as well as the consequences of halting such use.

The FDA issued the Order of Prohibition July 3 that would have, by Oct. 1, prohibited extralabel use of cephalosporin antimicrobial drugs in food-producing animals. In mid-August, the FDA extended the comment period to Nov. 1 and, as a result, implementation to Nov. 30.

The ban was intended to preserve antimicrobial effectiveness for treatment of disease in humans.

The AVMA letter cites a lack of scientific evidence indicating extralabel cephalosporin use in food animals presents a significant risk to humans, a lack of evidence that the ban would benefit human health, the potential for harmful unintended consequences to animals and humans, and a misinterpretation of federal regulations.

The letter notes that Congress authorized extralabel drug use in 1994 through the Animal Medicinal Drug Use Clarification Act. Because animal drug label indications are limited, such use is necessary to relieve pain and suffering of animals.

Arthur L. Craigmill, PhD, extension toxicology specialist, co-coordinator of the Western Region Minor Use Animal Drug Program, and co-director of the Food Animal Residue Avoidance Databank program at the University of California-Davis, wrote that FDA's cited evidence that the extralabel use of cephalosporin antibiotics has caused or will likely cause an adverse event has not been published in open literature but is inferred. He said a sweeping ban would be especially harmful for minor species such as sheep and goats, for which there are few FDA Center for Veterinary Medicine-approved antibiotics available.

The American Association of Swine Veterinarians also warned that few antimicrobials are approved to treat conditions in swine, and the ban could have had negative consequences for public health, food safety, or animal health and welfare.