



Veterinary Research News

Laboratory Animals

Primate veterinarians bridge gap between science, human medicine

When reports surfaced earlier this year that some primates at the New Iberia Research Center in Louisiana had been mistreated, some people may have seen it as confirmation of their worst suspicions about laboratory animal research.

A U.S. Department of Agriculture investigation of the facility ultimately resulted in just six citations for failing to comply with Animal Welfare Act standards.

The controversy over New Iberia illustrates a key challenge for those working in laboratory animal medicine, namely, a perception that scientists systematically abuse their nonhuman subjects. The primate research community was deeply troubled by the media portrayal and sought to counter the negative image by explaining that the New Iberia incident is a rare exception in a field that is working to discover new drugs, vaccines, and medical technologies to save lives, both human and animal.

The public rarely considers the need for animals in biomedical research, said Dr. Christian R. Abee, director of the Michael E. Keeling Center in Bastrop, Texas, but when they do, they understand why animals are a valuable resource. "The new treatments being worked on can save millions of lives. Just as the discovery of penicillin saved untold numbers of lives, we're trying to discover the antibiotics for the future," Dr. Abee said.

Among the many animal species used in research, few are as highly valued physiologically as nonhuman primates. These animals are used as translational models involving a range of human illnesses, including cancer, HIV/AIDS, hepatitis, Parkinson's disease, Alzheimer's disease, and cardiovascular illnesses.

Advocates of primate research say medical breakthroughs such as the polio and hepatitis B vaccines would not have been possible or realized as soon as they were if these animals were not part of the investigations. "Primates are as close as you can get to the next step, which is clinical trials in humans," said Dr. Cheryl D. DiCarlo, assistant director of research resources at the Southwest National Primate Research Center in San Antonio, Texas.

Much of the research involving nonhuman primates is conducted at the eight National Primate Research Centers located throughout the country. Overseen by the National Institutes of Health's National Center for Research Resources, those facilities house an estimated 28,000 animals representing more than 20 primate species. The centers also operate breeding colonies to maintain the supply of several primate species for research.

Given the considerable costs associated with caring for a chimpanzee throughout its lifetime—as much as \$500,000 over the span of 50 years—the NCRP in 1995 suspended financial support for the breeding of new chimpanzees. The center does provide ongoing monies for chimpanzees bred prior to the moratorium, and that includes retirement into a federally funded sanctuary system.

Primates are highly complex and social animals, so, in addition to having a team of veterinarians and veterinary technicians, each center employs a staff of behaviorists or trainers whose sole job is to provide environmental enrichment for the animals.

Humans aren't the only ones who benefit from new medical therapies. According to Dr. Franziska B. Grieder, director of the NCRP Comparative Medicine Division, many advances in human medicine are now used to enhance and prolong animal life.

"We wouldn't have specific cancer treatments if they weren't first developed for human patients—or hip replacements or cardiac valves. We would never put those into dogs if they weren't developed for humans," Dr. Grieder said.

Demand for primates fluctuates according to research needs at a given time. Research on HIV/AIDS, influenza, cancer treatments using monoclonal antibodies, and biodefense, for instance, are among some of the current hot topics.

The NIH worries that new and emerging diseases will increase demand for research animals and there won't be enough veterinarians to look after the animals properly. The Association of Primate Veterinarians has 374 members, 33 of whom reside outside the United States, according to APV president, Dr. Thomas E. Nolan. Those numbers, Dr. Nolan said, encompass most if not all veterinarians working with primates.

To offset the shortage, the NCRP in 2007 began offering the R25 training grant at each of the primate centers to train veterinarians for careers in primate clinical medicine. Dr. Greg K. Wilkerson started his two-year residency at the Keeling Center in February.

"Primate medicine wasn't something I initially considered, just because I didn't have a lot of exposure to primates," Dr. Wilkerson, a 2001 graduate of the Center for Veterinary Health Sciences at Oklahoma State University, said. "But once I did, I found it very fascinating. No two days are the same, and there are many opportunities for me."

For more information about research primates and laboratory animal medicine, visit the Web sites of the Association of Primate Veterinarians (www.primateteves.org), American College of Laboratory Animal Medicine (www.aclam.org), and National Center for Research Resources (www.ncrr.nih.gov/).

Regulatory and Legislative Issues

Federal veterinary loan repayment program moves ahead

Eagerly anticipated rules implementing the Veterinary Medicine Loan Repayment Program, authorized by the National Veterinary Medical Service Act passed more than six years ago, have at long last been published in the July 9 Federal Register.

According to the interim rule notice, the Department of Agriculture's Cooperative State Research, Education, and Extension Service will designate geographic and practice areas experiencing a shortage of food supply veterinarians as a step in carrying out the program goals of strengthening the nation's animal health infrastructure and supplementing the federal response during animal health emergencies.

Additionally, the agency will make educational loan repayment agreements with veterinarians who choose to provide veterinary services in veterinarian shortage situations for a determined period of time.

The AVMA has strongly advocated for the loan repayment program, including testifying before Congress about how the program can help alleviate the growing shortage of veterinarians working in needed areas, such as food animal medicine.

Dr. Mark Lutschaunig, director of the AVMA Governmental Relations Division, said the USDA will begin querying state health officials about their underserved areas in September. It is expected CSREES will begin accepting applications to the program by February or March of 2010, he added.

Since its enactment, Congress has appropriated about \$4.8 million for CSREES to administer the program. The agency expects to award this amount in the inaugural cycle and anticipates that future funding will be based on annual appropriations and balances from prior years, which will likely vary from year to year.

The agency plans to award each veterinarian \$25,000 per year in loan repayments for a minimum of three or four years, plus an amount sufficient to cover the additional tax liability.

The agency anticipates that about 40 Veterinary Medicine Loan Repayment Program agreements will be executed the first year.

CSREES is also considering a small pilot program whereby a limited number of NVMSA participants will receive an additional \$5,000 if they agree to serve during pandemics, zoonotic outbreaks, or other food supply emergencies.

The AVMA is submitting comments on the proposed rule in time for the Sept. 8, 2009, deadline. Among the Association's early concerns is the ineligibility of veterinarians who have consolidated their student loans.

From the AVMA

Board approves drug disposal guidelines, antimicrobial use task force

In Seattle, the 2008-2009 AVMA Executive Board held its final meeting July 8, and the 2009-2010 board met for the first time July 14, the final day of the AVMA Annual Convention.

The incoming board elected District VI representative, Dr. John R. Scamahorn of Greencastle, Ind., as its new chair and re-elected the District I representative, Dr. Douglas G. Aspros of White Plains, N.Y., as vice chair.

Installed on the board July 14 were two new members, Drs. V. Hugh "Chip" Price Jr. of Shreveport, La., and H. Theodore Trimmer of Las Vegas. Dr. Price succeeds Dr. Larry M. Kornegay in representing District VIII. Dr. Trimmer replaces Dr. David L. McCrystle, who was board chair this past year and representative of District X.

At its July 8 meeting, the board approved the policy titled "Best Management Practices for Pharmaceutical Disposal." The policy provides veterinarians with drug disposal guidelines for reducing water contamination and could lessen the likelihood of federal regulation.

Janet Goodwin, chief of the Technology and Statistics branch of the Environmental Protection Agency's Engineering and Analysis Division, said her agency has not made a final decision on whether to survey any of the medical professions but is currently recommending to senior managers not to survey veterinarians. Goodwin praised the AVMA for its "very positive" work on the BMPs for pharmaceutical waste, and she would like to see that effort continue as veterinarians adopt the recommended practices.

The AVMA guidelines on pharmaceutical disposal are available at

www.avma.org; click on "Policy," and scroll down to "Pharmaceutical Disposal, Best Management Practices for."

The board July 14 approved a recommendation from the Office of the Executive Vice President to establish an Antimicrobial Use Task Force to clarify veterinarians' role and degree of involvement in all uses of antimicrobials, through a science-based evaluation. A cost of \$17,000 was attached for meeting expenses.

The action was a response to a resolution referred to the board by the AVMA House of Delegates regarding a proposed revision to the "Judicious Therapeutic Use of Antimicrobials" policy.

Board members on July 8 approved the concept of a National Farm Animal Welfare Council and further development of this concept by AVMA staff and volunteers. This initiative was recommended by the Office of the Executive Vice President and the AVMA staff strategic goal manager for animal welfare.

The National Farm Animal Welfare Council would serve as an independent, credible, authoritative organization that develops minimum criteria for farm animal welfare assurance programs and awards a seal of approval for programs that meet or exceed the criteria. The organization would also promote dialogue about farm animal welfare concerns and issues.

Now that the board has approved the concept, a business plan will be developed for presentation to potential sponsors and others, to measure the support for such a program.

Also on July 8, the board approved up to \$50,000 in funding to develop a business plan for redevelopment of the AVMA Web site, as recommended by the Communications Division. The \$50,000 is seed money to employ a consulting firm and engage other resources to prepare the plan.

The board approved a Legislative Advisory Committee recommendation of "nonsupport" for the Strategies to Address Antimicrobial Resistance Act (H.R. 2400), which would amend the Public Health Service Act to enhance efforts to address antimicrobial resistance. While recognizing the importance of research and data collection to validate decisions concerning antimicrobial resistance, the LAC took issue with the way data may be collected.

At its July 14 meeting, the board did not approve a recommendation for the Association to continue its sponsorship of the AVMA Veterinary Leadership Experience at \$75,000 per year for 2010-2013. The board did, however, direct the Membership and Field Services Division to conduct a broad examination of AVMA student programs and whether the VLE fits in with the overall mission of the Association.

In another student-related action July 14, the board recommended that an AVMA Bylaws amendment to add the Student AVMA president to the AVMA Executive Board as a nonvoting, invited participant be initiated. The AVMA Task Force on Future Roles and Expectations recommended the measure as a way to foster improved dialogue. The cost would be about \$5,000 for five meetings per year. The proposed amendment will be submitted to the House of Delegates for action in January at its regular winter session.

The board approved the appointment of Dr. Elizabeth Curry-Galvin as AVMA assistant executive vice president, effective Sept. 8. She will succeed Dr. Lyle P. Vogel, who has served in this position for two years and will retire from the AVMA. Dr. Curry-Galvin has been director of the Scientific Activities Division since 2006 and was an assistant director from 1996-2006.

A stronger alliance with the National Association of Veterinary Technicians in America is a concept the board approved, as recommended by the AVMA/NAVTA Executive Board Liaison Committee. AVMA and NAVTA staffs will develop their concept paper into a concrete proposal.

The board also approved a concept to develop new opportunities for AVMA members to provide input on Association policies and actions. The document submitted by the Office of the Executive Vice President describes two potential approaches to gathering member input: Publish a list of policies coming up for review in the next year with instructions on submitting comments and related background material for consideration, or create a Federal Register-type process for comment submission.

HOD elects officers, votes on antimicrobials, zoo veterinarians

The AVMA policy on Ear Cropping and Tail Docking of Dogs remained

intact, the AVMA Council on Communication didn't, and the American Association of Zoo Veterinarians became the newest member of the Advisory Panel to the AVMA House of Delegates.

In all, the House of Delegates voted on nine proposed amendments to the AVMA Bylaws and four resolutions at its 2009 regular annual session July 9-10 in Seattle.

In AVMA governance, Dr. Larry R. Corry assumed the presidency during the AVMA Annual Convention, succeeding Dr. James O. Cook. The HOD elected Dr. Larry M. Kornegay as president-elect and gave Dr. Gary S. Brown a second term as vice president. Dr. René A. Carlson declared her candidacy for 2009-2010 president-elect, and Dr. Jan K. Strother declared her candidacy for vice president.

At the HOD, approximately 75 percent of members voted against Resolution 4, submitted by the Utah VMA, which sought to retract the AVMA's stated opposition to ear cropping and tail docking. Dr. Roddy C. Sharp, Utah delegate, said the resolution was introduced to bring the issue up for debate. In November 2008, the AVMA Executive Board amended AVMA policy to state that the Association opposes ear cropping and tail docking when done solely for cosmetic purposes. In addition, the amended policy encourages eliminating mention of these procedures from breed standards.

By a vote of 93.1 percent, delegates did pass Resolution 1, which will allow the American Association of Zoo Veterinarians to be the newest member of the Advisory Panel to the HOD. The House Advisory Committee authored the resolution. Although the AAZV membership is too small for it to qualify as a constituent allied organization in the HOD, the HAC believes the organization is an important informational resource.

House members took a different approach to Resolution 3, which would have removed the words "when under the direction of a veterinarian" from the following statement in the Judicious Therapeutic Use of Antimicrobials Policy: "Judicious use of antimicrobials, when under the direction of a veterinarian, should meet all requirements of a veterinarian-client-patient relationship."

The New Jersey VMA, Association of Avian Veterinarians, and Washington State VMA submitted the resolution. In the background information, the sponsoring groups explained that, as organizational policy, the AVMA should have the clearly stated, unequivocal concept that veterinarians are the gatekeepers and decision makers regarding judicious use of antimicrobials.

Instead of approving or disapproving the measure, the HOD requested that the Executive Board convene a multidisciplinary group to review the Association's "Judicious Therapeutic Use of Antimicrobials" policy. Delegates also asked that the group consider revising the policy to clarify veterinarians' role in achieving this end. The HOD requested that the Executive Board provide the group's recommendation to the HOD for final consideration no later than the 2010 regular annual session.

Resolution 2 was withdrawn by the HAC, which submitted it, in light of the May 29 release of the National Academies' report "Scientific and Humane Issues in the Use of Random Source Dogs and Cats in Research." The resolution would have revised AVMA policy on the "Use of Random-Source Dogs and Cats for Research, Testing, and Education."

The Animal Welfare Committee will review the NAS report as part of its ongoing analysis of random-source animal needs.

The HOD approved Resolution 5, submitted by Reference Committee 4 on Finance, which asked that the HOD request the board to authorize up to \$175,000 from the AVMA reserves to reimburse delegates and alternate delegates for travel expenses to the 2010 winter and annual sessions at amounts consistent with 2009 funding.

The funding had been cut to \$550 per meeting for each delegate and alternate as one of many cost-saving measures to achieve a balanced budget.

Regarding AVMA Bylaw amendments, six were adopted.

Delegates considered, and ultimately approved by 71.3 percent, HAC-submitted amendment 8, which removed the Council on Communications from the list of councils authorized by the bylaws. This was

the same amendment that the HOD disapproved at its regular winter session this past January.

The HOD approved amendments 1, 2, and 3, submitted by the HAC, which proposed that AVMA entities submit to the Executive Board any report they develop on a veterinary medicine-related resolution referred to them by the HOD. If requested by the HOD, the board would then submit a new resolution to the HOD, incorporating the findings.

The New Jersey VMA, Association of Avian Veterinarians, and Virginia VMA proposed a different approach in corresponding amendments 4, 5, and 6, which were disapproved.

The HOD also approved Amendments 7 and 9. Amendment 7 proposed a deletion in the bylaw about disciplinary action/termination of AVMA membership, striking information on how a statement of charges must be delivered to a member.

Approval of Amendment 9 changes the term of service for council members from six years to three, with the option of running for a second consecutive term. The HAC submitted the amendment with the intent that a three-year term could attract more candidates while allowing the HOD to avoid re-electing a member who is not furthering the charge and objectives of the council. The Council on Education is exempted from this change.

Seattle convention offers in-depth education, AVMA discourse

Veterinary professionals flocked to Seattle for the 146th AVMA Annual Convention, July 11-14, for four full days of continuing education, networking opportunities, and social activities.

The convention drew a total attendance of 9,488, including a high turnout of 4,321 veterinarians—an especially noteworthy feat given the current economy.

Inside the Washington State Convention and Trade Center, the AVMA convention presented an array of educational sessions and special events. The exhibit hall housed 232 booths highlighting the latest veterinary products and services.

The AVMA Opening Session spotlighted the business successes of the

local Pike Place Fish Market. Fishmongers kicked off the keynote presentation with a fish-tossing demonstration while John Yokoyama, owner of the market, and Jim Bergquist, a business coach, spoke about fostering teamwork and creating a niche.

The CE program offered about 1,100 educational sessions. A new feature was the Beyond the Basics sessions, which allowed attendees familiar with particular subjects to delve deeper into the topics. The One Medicine track encompassed a two-day summit about the role of the veterinary profession in improving global health.

The inaugural AVMA Town Hall Meeting offered a forum to discuss issues such as standards of veterinary education, diversity in the profession, and member engagement with the AVMA. The American Veterinary Medical Foundation's second volunteer project spruced up several local animal shelters, including a shelter for horses.

AVMA recognizes leaders in veterinary medicine, animal care

Dr. James E. Nave of Las Vegas received the 2009 AVMA Award during the opening session of the AVMA Annual Convention, July 11. The Association's highest honor recognizes contributions to the advancement of veterinary medical organizations. Currently, Dr. Nave is the AVMA director of international veterinary affairs. Among a multitude of leadership roles, he has served as AVMA president and as the first chair of the National Commission on Veterinary Economic Issues.

The AVMA also recognized four other veterinarians during the opening session. The Leo K. Bustad Companion Animal Veterinarian of the Year Award went to Dr. Brian W. Forsgren, who has devoted his career to providing veterinary care in Cleveland's low-income communities. The recipients of the AVMA President's Award were Col. Cliff L. Walker, posthumously, commander of the U.S. Army Veterinary Command; Dr. Roger K. Mahr, the AVMA past president who proposed the One Health Initiative; and Dr. Douglas G. Corey, who has worked with

veterinary and nonveterinary organizations to improve horse welfare.

The AVMA presented additional awards to 11 individuals during the President's Installation Luncheon, July 14.

The recipient of the AVMA Animal Welfare Award was Dr. Kathryn A.L. Bayne, global director for the Association for Assessment and Accreditation of Laboratory Animal Care International. Receiving the AVMA Humane Award was Cynthia L. Bathurst, PhD, co-founder of Safe Humane Chicago, which seeks to reduce violence by promoting compassion for animals and people.

The AVMA Lifetime Excellence in Research Award went to Dr. Anthony Simon Turner, who established a laboratory for comparative orthopedic research at Colorado State University; the AVMA Practitioner Research Award went to Dr. William D. Liska, an expert in joint replacement surgery who helped develop the BioMedtrix Canine Total Knee Replacement System; and the AVMA Public Service Award went to Dr. Robert L. Rausch, a University of Washington professor who has devoted his long career to investigating zoonoses in the Arctic.

The recipient of the Charles River Prize was Dr. John Gilbert Miller, the first director of the National Institutes of Health Office for Protection from Research Risks. Receiving the Karl F. Meyer-James H. Steele Gold Head Cane Award was Dr. Charles O. Thoen, Iowa State University professor and past head of the National Veterinary Services Laboratories' Mycobacteria and Brucella Section.

The Royal Canin Award went to Dr. Scott A. Brown, a University of Georgia professor and expert in nephrology and systemic hypertension. The XII International Veterinary Congress Prize went to Dr. Karen Marie Becker, senior animal health adviser for the Africa Bureau of the U.S. Agency for International Development.

Receiving Student AVMA Teaching Excellence Awards in Basic Sciences and Clinical Sciences were Dr. Cynthia R. Ward, a University of Georgia associate professor, and Dr. Colby G. Burns, a resident at The Ohio State University, respectively.

The votes are in for AVMA councils, HAC

In Seattle, the House of Delegates filled vacancies on AVMA councils and the House Advisory Committee.

Council on Biologic and Therapeutic Agents

Dr. Stephen Sutherland, Richland, Mich., representing industry, exclusive; Dr. H. Scott Hurd, Ames, Iowa, representing epidemiology; Dr. Stanley KuKanich, Manhattan, Kan., representing clinical pharmacology; and Dr. Murl Bailey, College Station, Texas, representing members-at-large

Council on Education

Dr. Frederik Derksen, East Lansing, Mich., representing basic science; and Dr. D. Glen Esplin, Salt Lake City, representing nonprivate practice, non-academic veterinary medicine

Council on Public Health and Regulatory Veterinary Medicine

Drs. David Chico, Albany, N.Y., and Nick Striegel, Fort Collins, Colo., representing agricultural agencies

Council on Research

Dr. Michael Kotlikoff, Ithaca, N.Y., representing colleges of veterinary medicine

Council on Veterinary Service

Dr. Rolan Tripp, La Mirada, Calif., representing private practice, exclusively small animal; and Dr. Amanda Chea Hall, Canby, Ore., representing members-at-large

Judicial Council

Dr. Andrew Maccabe, Washington, D.C., representing members-at-large

House Advisory Committee

Dr. Kenneth Bartels, delegate from Oklahoma, representing teaching and research; Dr. George Bishop, delegate from California, representing private practice, predominantly small animal; and Dr. Michael Topper, alternate delegate from Pennsylvania, representing members-at-large

The Veterinary Community

Leininger to manage education consortium

On July 12, the Association of American Veterinary Medical Colleges announced its choice to lead the consortium that will chart the future course of veterinary medical

education. AVMA past president Dr. Mary Beth Leininger was appointed project manager for the North American Veterinary Medical Education Consortium.

The consortium was inspired by the Foresight Report, a long-range planning study for academic veterinary medicine coordinated by the AAVMC. It serves to meet the top priority of the AAVMC's new strategic plan, shaping the future of veterinary medical education. The first step in that process is to develop a plan to enhance the efficiency and effectiveness of veterinary medical education to meet societal needs.

"The consortium will assemble an amazing cross-section of our profession—academia, VMAs, practitioners, industry—and nonveterinary organizations," Dr. Leininger said, to promote breadth in expressing and listening to diverse ideas.

The AAVMC has received pledges of more than \$440,000 to fund the initiative, with more than 140 organizations participating.

Dr. Leininger, a 1967 Purdue University graduate, believes that issues relating to the veterinary curriculum must be the first focus of the consortium: determining societal needs that future veterinarians will be filling, identifying the skills and competencies that will be needed by those future graduates, and exploring educational models that will produce those graduates. However, because they are so intertwined with the educational process, licensure and institutional accreditation will also be addressed.

Dr. Leininger anticipates developing a framework with AAVMC executives this year. The several national meetings that are anticipated over the next 12 to 18 months will likely wrap around other national events and involve a professional facilitator.

A former Michigan VMA president, Dr. Leininger co-owned a companion animal practice in Michigan before joining Hill's and moving to Kansas. Earlier this year, she retired from her position as director of professional affairs at Hill's. For many years, she has been deeply interested in veterinary students and academic institutions.

CDC council: fewer postexposure rabies vaccine doses needed

A health advisory committee recommends four postexposure rabies vaccine doses, rather than five, for people without previous rabies vaccinations.

The Advisory Committee on Immunization Practices of the Centers for Disease Control and Prevention voted June 24 to recommend the reduction for naive patients. The 15-member committee provides advice and guidance to the Department of Health and Human Services and the CDC.

The CDC is recommending that state and local health departments and health care providers plan to implement the dosage recommendations after provisional guidelines are available, but delay implementing changes until after the formal updated recommendations are published in a CDC Morbidity and Mortality Weekly Report. The report containing those changes is expected to be published within several months of the June 24 meeting. The CDC Morbidity and Mortality Weekly Report is online at www.cdc.gov/mmwr.

An online Q-and-A page from the CDC states a panel of rabies experts reviewed literature on rabies pathogenesis, vaccine trials, animal studies, epidemiologic surveillance, and health economics prior to the committee's recommendation.

The committee recommends administration of postexposure prophylaxis on the day of exposure with subsequent doses three, seven, and 14 days later. The committee's 2008 recommendations also called for administration of a dose 28 days later.

The ACIP did not recommend any changes in the number or schedule of doses for previously immunized people.

The ACIP's provisional guidelines will be available on the committee's Web site at www.cdc.gov/vaccines/recs/acip/default.htm.

Information about rabies vaccines is available at www.cdc.gov/rabies and in a Q-and-A page at www.cdc.gov/rabies/qanda/ACIP4dose.html. 