Veterinary Research News

Comments Invited

FDA finds food from animal clones to be safe

The Food and Drug Administration has found that meat or milk from clones of adult cattle, swine, and goats—and offspring of these clones—is as safe to eat as food from conventionally bred animals.

The agency recently requested public comment by April 3 on three documents regarding the safety of animal cloning—a draft risk assessment, a proposed risk management plan, and a draft guidance for industry.

Dr. Stephen F. Sundlof, director of the FDA Center for Veterinary Medicine, said the agency analyzed hundreds of publications and other studies on the health and food composition of clones and clones' offspring.

A group of independent scientific experts in cloning and animal health reviewed the draft risk assessment. The document presents an overview of reproductive methods in animal agriculture, including cloning, along with extensive scientific information about risks from cloning for animal health and food consumption. The conclusions agree with the findings of a 2002 report from the National Academy of Sciences.

The FDA's proposed risk management plan addresses risks to animal health and potential remaining uncertainties about human food or animal feed from animal clones and offspring. The plan also outlines measures that the agency might take to address risks to animals in the cloning process. These risks occur with other reproductive technologies, though the frequency of anomalies is higher for cloning.

One measure could be that the FDA would work with scientific and professional societies with expertise in animal health and reproduction to develop care standards for animals in the cloning process. Although the agency does not have authority to address the ethics of animal cloning, the proposed risk management plan states that the FDA plans to provide scientific expertise to parties working on these issues.

The draft guidance for industry provides guidance for clone producers, livestock breeders, and farmers and ranchers purchasing clones. The document provides the FDA's current thinking on the use of clones and offspring in human food or animal feed. Because of limited data on sheep clones, the FDA recommends not using sheep clones for human food.

In the draft guidance, the agency does not recommend any special measures relating to human food use of offspring of clones of any species. Because of their cost and rarity, the FDA anticipates that clones will be similar to other elite breeding stock—which pass on naturally occurring, desirable traits such as disease resistance and higher quality meat to production herds. The FDA expects that almost all of the food that comes from the cloning process will come from sexually reproduced offspring and descendents of clones.

Dr. Sundlof said the agency continues to ask producers of clones and livestock breeders to refrain voluntarily from introducing food products from these animals into commerce so that the FDA can consider public comments and publish final documents on the subject.

Parties can submit comments electronically at www.fda.gov by clicking on Dockets under Reference Room, then clicking on Submit Electronic Comments. Parties can submit comments by mail to Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Room 1061, Rockville, MD 20852. All comments should refer to docket number 2003N-0573.

More information is available at www.fda.gov/cvm/CloneRiskAssessment.htm.

From the AVMA

Executive Board acts on animal welfare, education recommendations

The AVMA Executive Board met Nov. 16-18 in the newly opened conference center at Association headquarters in Schaumburg, Ill. Dr. James Cook, District V, Lebanon, Ky., chaired the meeting.

On recommendation from the AVMA Council on Research, the board approved a policy opposing the Use of Placebo Controls in Assessment of New Therapies for Alleviation of Acute Pain in Client-Owned Animals. The policy states, in part, that "the availability of, and clinical experience with, a number of existing effective, and in most cases FDA-approved, pain-relieving compounds currently in use today in veterinary practice significantly diminishes the rationale and justification for including such placebo control groups in prospective studies on acute pain."

In March 2005, the AVMA had sent a letter encouraging the Food and Drug Administration's Center for Veterinary Medicine to prohibit placebo control studies for assessment or approval of new pain-control medications when FDA-approved pain management products are available (*see AJVR*, February 2005, page 185).

The board approved AVMA Animal Welfare Principles as a replacement for the AVMA Guiding Principles on animal welfare. The Animal Welfare Advisory Committee crafted the eight principles to be highly functional and applicable across a range of species and practice

areas. Approval of these new principles concluded their work. To access the principles, go to www.avma.org and click on Policy.

The board received as information the final report of the AVMA Task Force on Diversity—"Unity through Diversity"—and approved its recommendation to provide funding for three half-day diversity training sessions at a total cost of $10,000. Members of the Executive Board, House Advisory Committee, and staff assigned to AVMA entities will each attend a session.

The task force's recommendation to approve a new AVMA staff position dedicated to diversity initiatives was referred to the Executive Division, which will report back to the board in April. The board disapproved the task force's recommendation to establish a separate Committee on Diversity, at a cost of $14,000 per year.

The board approved budgeting $10,000 annually for five years, starting in 2007, toward the Merck-Merial Veterinary Scholars Symposium. The symposium brings together veterinary students at the conclusion of summer research projects to present their findings and network with researchers.

The board disapproved spending $80,000 toward the 2007 Merck-Merial Veterinary Scholars Program, which provides support for students participating in summer research.

The board disapproved a recommendation to establish a National Summit on the One Health Initiative Steering Committee and host a National One Health Summit. The recommendation was submitted by three AVMA councils and two committees, including the AVMA/Association of American Veterinary Medical Colleges Joint Committee.

The concept originated with AVMA President Roger K. Mahr, who, in his address to the House of Delegates this past July, presented his vision for a national one- health initiative integrating animal health, human health, and ecosystem health, with a common focus to protect and improve both animal and public health worldwide.

The board received the report of the Education Standards Task Force regarding outside influences on the education and licensure of veterinarians and veterinary technicians in the United States. Then, the board approved the task force's recommendation to establish a Council Selection Task Force. This task force will explore means to modify the current process for choosing members of the Council on Education to ensure selection of the best candidates.

In addition, the board established another task force to conduct a comprehensive review of the standards for accreditation of veterinary schools and colleges. The review will respond to changing educational needs, recognition requirements of the U.S. Department of Education and the Council on Higher Education Accreditation, and societal demands for veterinarians and veterinary services.

The board voted to sunset the online AVMA Mentoring Center. By the end of August 2006, the center had only 30 active mentoring relationships. The Member Services Committee is investigating other existing online AVMA programs as avenues for providing a mentoring resource.

The board created another position for an assistant director in the Scientific Activities Division to help handle a workload that has grown with the increasing influence of the AVMA on science-based policy decisions.

The board approved support of a two-phase approach for implementing the National Veterinary Medical Service Act loan repayment program. The NVMSA authorizes the Agriculture Secretary to establish a loan repayment program for veterinarians who agree to serve in veterinary shortage areas and emergency situations. The two-phase approach will be implemented by the Department of Agriculture's Cooperative State Research, Education, and Extension Service, in consultation with other USDA agencies and the AVMA Governmental Relations Division.

The board recognized as a resource the new Model Infection Control Plan for Veterinary Practices from the Veterinary Infection Control Committee of the National Association of State Public Health Veterinarians.

Extralabel drug use was the subject of two actions. The board encouraged that any future Food and Drug Administration prohibitions on the extralabel use of drugs in food-producing animals be limited rather than broad, consistent with the protection of the food supply, public health, and animal welfare. In a separate action, the board encouraged the FDA to consider amending the agency's rules or Compliance Policy Guide on Extralabel Use of Medicated Feeds for Minor Species to accommodate the extralabel use of veterinary feed directive drugs in minor species.

The board supported the appropriation of sufficient operational funding for organizations that make up the National Centers for Animal Health to reflect a rise in operational costs resulting from modernization.

News of the Profession

Industry, academia forge links to train pathologists

The Coalition for Veterinary Pathology Fellows, with the continuing financial support of the biopharmaceutical industry, has now established 13 new training positions for veterinary pathologists.

The American College of Veterinary Pathologists and the Society of Toxicologic Pathology established the coalition in late 2004 to solicit and allocate funding to train additional veterinary pathologists to fill positions in industry, academia, and government (*see JAVMA*, June 15, 2005, page 1964).

The demand for veterinary pathologists exceeds the supply in these sectors, similar to the situation for many other veterinary specialists. Industry needs more veterinary pathologists to help develop modern biopharmaceuticals. Academia needs veterinary pathologists to replace retiring senior faculty—and to train the next generation of veterinary pathologists.

During the past two years, North American training institutions submitted 51 applications to the ACVP/STP coalition for the 13 new training positions. The coalition's board of govenors

evaluated the applications and awarded 10 positions.

The board made appointments to eight residencies in anatomic pathology. GlaxoSmithKline will provide funding for Drs. Torrie Crabbs at the University of California-Davis, David Gardiner at Colorado State University, and Sandeep Akare at the University of Illinois. Pfizer will fund Drs. Lyn Wancket at The Ohio State University, Robert Johnson at Purdue University, and Melissa Sanchez at the University of Pennsylvania. Eli Lilly is funding Dr. Jana Ritter at Michigan State University, and sanofi-aventis is funding Dr. Danielle Lewis Brown at North Carolina State University.

The coalition board made appointments to two post-residency doctorate positions. Bristol-Myers Squibb will fund Dr. Alicia Olivier at Iowa State University, and Schering-Plough will provide funding for Dr. Aaron Sargeant at The Ohio State University.

Recruiting is under way for three other residency positions—in anatomic pathology at Washington State University, with funding from Amgen; in anatomic pathology at the University of Guelph, with funding from Genentech; and in clinical pathology at the University of Guelph, with funding from Merck.

The ACVP/STP coalition also has received unrestricted grants from Bristol-Myers Squibb, Allergan, Experimental Pathology Labs, Integrated Lab Systems, Wyeth, The Leyden Group, and the Burroughs Wellcome Fund. To date, the private sector has provided more than $3 million to support coalition efforts.

The coalition is soliciting funds for additional training positions for 2007.

"Industry's continued strong financial support and the intense competition among training institutions for these prized fellowships clearly demonstrates the value of and need for this type of collaborative educational initiative," said Dr. Gary Cockerell, director of the coalition.

Information is available from the coalition Web site at www.vetpathcoalition.org.

Research in Progress

Tissue repository to advance study of cancer in dogs

Three veterinary colleges will collect cancer specimens from dogs for a central tissue repository as part of the National Cancer Institute's new Canine Comparative Oncology Genomics Consortium.

The volume of samples in the Maryland repository will help advance research on cancer in dogs and will enhance efforts to learn more about cancer in humans.

Veterinary centers will collect the tissue and blood samples from companion dogs as part of diagnostic or surgical work-ups. The consortium will make samples from the collection available to researchers by application, subject to a scientific review process to ensure the best use of tissues. Cancer samples will include osteosarcoma, lymphoma, and melanoma.

The University of Wisconsin-Madison, Colorado State University, and The Ohio State University won the initial bids to collect tissues. The consortium ultimately expects to recruit a total of 10 sample providers, with a goal of collecting samples from 3,000 dogs with cancer over the next three years.

Researchers create, evaluate prion-free cattle

The Department of Agriculture's Agricultural Research Service has announced initial results of research involving prion-deficient cattle.

Animals naturally produce the prion protein, but an abnormal form of prion causes transmissible spongiform encephalopathies in many species. Prion-deficient cattle might be a useful model for research and could provide industrial bovine products free of the protein.

Hematech Inc., a pharmaceutical research company in Sioux Falls, S.D., genetically engineered eight Holstein males in which prion production is disrupted. Dr. Jürgen Richt of the ARS National Animal Disease Center in Ames, Iowa, led an evaluation of the cattle that revealed no apparent developmental abnormalities by 20 months of age.

Scientists at ARS, Hematech, and the University of Texas evaluated the cattle via careful observation, necropsies of two animals, and assessment for abnormal proteins. Further tests will take at least three years to complete.

The evaluation appeared in the January issue of the journal Nature Biotechnology, online at www.nature.com/nbt/.

In early 2006, a group of scientists from Texas A&M University College of Veterinary Medicine and Biomedical Sciences and Howard Hughes Medical Institute reported genetically engineering a prion-deficient goat fetus. Other studies have focused on the disruption of prion production in mice, a species that does not naturally contract prion diseases.

Global News

Diseases on the move charted

Visitors to the new Web site HEALTHmap, www.healthmap.org, can pinpoint the latest outbreaks of more than 50 human and animal illnesses, from avian influenza to chikungunya fever, a mosquito-borne disease of Asia and Africa.

Created by epidemiologist John Brownstein of Harvard Medical School in Boston and software developer Clark Freifeld of Children's Hospital Boston, the site automatically picks up and charts fresh case reports and other data from sources such as the World Health Organization, Google News, and the disease alert Web site ProMED-mail.

Visitors can sort the information by disease and country and can click on the world map to summon the original reports.

University of Melbourne receives AVMA accreditation

Australia's University of Melbourne Faculty of Veterinary Science recently received AVMA Council on Education accreditation, joining a group of seven other veterinary colleges outside North America.

The council awarded full accreditation to the Melbourne faculty for seven years.

Dr. Ivan Caple, dean of veterinary science, said the faculty mounted a seven-year campaign to achieve the AVMA accreditation. The college also has accreditation from Australasian and United Kingdom quality assurance programs.

Vijoleta Braach-Maksvytis, PhD, the university's deputy vice chancellor for innovation and development, said the AVMA accreditation helps Melbourne move toward becoming a truly global institution.

The other veterinary colleges outside North America that have attained AVMA accreditation are at Australia's Murdoch University and University of Sydney, England's University of London, The Netherlands' State University of Utrecht, New Zealand's Massey University, and Scotland's University of Glasgow and University of Edinburgh.

Proposals Invited

AAFP seeks feline sarcoma research proposals

The American Association of Feline Practitioners will award a grant in 2007 for meaningful research in vaccine-associated sarcoma in cats. The grant is being funded through the American Veterinary Medical Foundation.

Visit the AAFP Web site, www.aafponline.org, to complete an application. Applications and 10 copies of the proposal must be received in the AAFP office by May 15. Grant selection will be completed by July 1.

Funding Announced

LSU equine eye surgery sparks new fund

The LSU Foundation has established the Lexi Fund to dedicate financial resources toward clinical service, scientific investigation, and educational endeavors in the field of equine ophthalmology.

The fund was established through the generosity of horse owners Julie Calzone and Bob Gardes, both of Lafayette, La. The owners' mare, named Lexius, was brought to the Louisiana State University School of Veterinary Medicine to correct her failing eyesight.

A team of international surgeons along with LSU veterinarians and technicians worked to preserve her sight through vitrectomy, a rare surgery that was unprecedented at LSU.

Because of the success of the surgery, Calzone and Gardes came up with the idea of the fund as a way to help other horses with ophthalmologic conditions.

To learn more about the fund, contact Ky Mortensen at LSU's Equine Health Studies Program at (225) 578-9590.

The Veterinary Community

Oregon State appoints Clarke as dean


Dr. Cyril Clarke

Oregon State University has named Dr. Cyril Clarke as dean of the College of Veterinary Medicine, effective May 14. George R. Holdren, PhD, is the interim dean.

For the past 19 years, Dr. Clarke has worked at Oklahoma State University in a variety of capacities. Most recently, he has served as associate dean for academic affairs for the Center for Veterinary Health Sciences.

He also has headed the center's Department of Physiological Sciences. Dr. Clarke expanded the department's faculty and promoted more scholarly publishing and outside research funding.

Dr. Clarke has focused his research and teaching on pharmacology, and he is a diplomate of the American College of Veterinary Clinical Pharmacology. He has collaborated on biosensor technology with a research and development company.

Previously, Dr. Clarke spent time in national service in his native South Africa practicing in rural and Swazi communities. He graduated from the University of Pretoria Faculty of Veterinary Science in 1981.

Veterinarian joins Poultry Hall of Fame

The American Poultry Historical Society inducted Dr. Richard L. Witter into the American Poultry Hall of Fame on Jan. 24.

Dr. Witter helped develop five of the seven current vaccines for Marek's disease. He began his research career in 1964 at the Department of Agriculture's Avian Disease and Oncology Laboratory. He retired in 2002 but continues to serve as a collaborator.

Dr. Witter also is a diplomate of the American College of Poultry Veterinarians. He graduated from Michigan State University College of Veterinary Medicine in 1960.

Research Results

Study links salmonellosis to pet rodents

A new study concludes that pet rodents probably are an underrecognized source of salmonellosis in humans.

"Multidrug-resistant *Salmonella enterica* serotype Typhimurium associated with pet rodents" appeared in the Jan. 4 edition of the New England Journal of Medicine.

In 2004, the Minnesota Department of Health notified the Centers for Disease Control and Prevention of the isolation of multidrug-resistant *Salmonella* Typhimurium from ill hamsters from a Minnesota pet distributor. A report in the Weekly Morbidity and Mortality Report for May 6, 2005, described two of the first human cases in this outbreak (*see JAVMA*, June 15, 2005, page 1965).

The new study identified matching isolates of *Salmonella* Typhimurium in 28 additional human patients in whom the onset of illness occurred between December 2003 and September 2004. Twenty-two patients or their parents were available for interviews. Thirteen of these patients in 10 states reported exposure to pet hamsters, mice, or rats. Two patients had secondary infections. The median age of the 15 patients with primary or secondary rodent exposure was 16 years, and six patients spent time in the hospital.

The study identified 13 pet stores in 10 states, with seven distributors, that had connections to the outbreak. The study did not identify a single source of the ill rodents.