

Contents

Policies & Perspectives 1-2

- ILAR Seeks Comments on Transportation of Lab Animals
- USDA Activity Regarding Birds, Mice, and Rats in Research
- UK Announces New Centre to Reduce Animal Tests

Resources & Services 2

- Free Neuroscience Publication: First Come, First Served
- Free Trial of Pain Gauge

Upcoming Conferences 2

From the Technical Literature 2-3

- Housing Conditions and Anxiety Levels in Mice
- Experts Convene to Address Animal Pain Research and Treatment

Statistics on Animal Use & Pain & Distress 3

- Canada Releases Survey of Animal Use for 2001

Attitudes & Public Opinion 3

- British Disapprove of Research Involving Animal Pain and Distress

Special Feature 3-4

- Public Attitudes toward Animal Research: Historical Perspective

Recent Publications 4



A report
from the
Pain & Distress
Initiative of The
Humane Society
of the United States

Policies & Perspectives

ILAR SEEKS COMMENTS ON TRANSPORTATION OF LAB ANIMALS

A new study launched in April 2004 by the Institute for Laboratory Animal Research (ILAR) of the U.S. National Academy of Sciences addresses problems associated with the transportation of laboratory animals. The study, sponsored by the National Institutes of Health (NIH) and the National Center for Infectious Diseases (NCID), will address issues such as animal welfare concerns during transportation; the availability or lack of quality transportation services for animals; and overlaps or gaps in regulatory oversight. A report will be issued at the conclusion of the 18-month study. To submit comments during the study, visit <http://dels.nas.edu/ilar/projects.asp?id=projects> and go to Committee on Guidelines for the Humane Transportation of Laboratory Animals and then to Feedback.

USDA ACTIVITY REGARDING BIRDS, MICE, AND RATS IN RESEARCH

The U.S. Department of Agriculture (USDA) has announced a final rule (*Federal Register*, June 4, 2004) regarding changes to the definition of “animal” within Animal Welfare Act (AWA) regulations. These changes reflect an amendment to the Farm Security and

Rural Investment Act of 2002, which specifies the exemption of birds, rats of the genus *Rattus*, and mice of the genus *Mus* who are bred for use in research from the definition of “animal” within the AWA. This rule became effective June 5, 2004. As a result of these changes, the USDA has also published an advance notice of proposed rule-making (*Federal Register*, June 4, 2004) and is seeking comments on regulations and standards regarding the care and use of those birds, mice, and rats covered under the AWA, i.e., birds, mice, and rats not bred for research, as well as mice other than of the genus *Mus* and rats other than of the genus *Rattus* bred for research. The notice specifies that the USDA is considering changes to “promote the humane handling, care, treatment and transportation” of these species. The original deadline of August 3, 2004, has been extended to November 1, 2004 (*Federal Register*, July 21, 2004).

UK ANNOUNCES NEW CENTRE TO REDUCE ANIMAL TESTS

The British government has announced that it is establishing a National Centre for the Replacement, Refinement, and Reduction of Animals in Research (the Three Rs) with the purpose of encouraging and funding research in the Three Rs. The new National Centre will be based at the Medical Research Council’s existing Centre for Best Practice for Animals in Research, a move that

continues on page 2

has generated controversy. Some British animal protection campaigners are worried that the National Centre will lack independence, given its link to the animal-research-funding Medical Research Council, and that it will concentrate on refinement at the expense of reduction and replacement (2004, *Alternatives to Laboratory Animals*, 32(1): 2–3).

Time will tell whether or not the National Centre becomes a powerful force in advancing the Three Rs in research and testing. The comparable government entities in the United States are the National Toxicology Program Interagency Center for the Evaluation of Alternative Toxicological Methods and its sister organization, the Interagency Coordinating Committee on the Validation of Alternative Methods. These U.S. entities are influential in advancing alternative methods but they are limited in scope (to testing as distinct from research) and in resources, forcing U.S. efforts to be largely reactive instead of proactive.

Resources & Services

FREE NEUROSCIENCE PUBLICATION: FIRST COME, FIRST SERVED

The Humane Society of the United States (HSUS) is offering a free copy of *Guidelines for the Care and Use of Mammals in Neuroscience and Behavioral Research* (National Academies Press, 2003) to the first 50 people who contact us. The book addresses various issues, such as regulatory and ethical considerations, protocol development, food and water restriction, survival studies, prolonged nonsurvival studies, and neural injury research. For a free copy, contact The HSUS at ari@hsus.org or call 301-258-3041.

FREE TRIAL OF PAIN GAUGE

Public Health Information Services, Inc., is making a newly launched pain assessment device available to

veterinarians for a two-week free trial. The Pain Gauge® provides a nearly instantaneous reading of electrodermal activity (EDA). Benford and Dannemiller (2004, *Lab Animal News*, March/April: 29–35) discuss the use of EDA in laboratory animals and indicate that various studies have shown EDA's usefulness in assessing pain and stress in animals, including humans. The authors caution that, despite its usefulness, EDA should not be used as the only assessment tool for pain and stress diagnosis. If EDA is adopted as an assessment tool, it could serve many uses, including generating information regarding pain and stress associated with specific techniques or conditions, species-specific differences,

and adequacy of pain and stress management. Further study of EDA in the laboratory, however, is needed. For more information on how to order the free trial of this device, go to www.paingauge.com.

From the Technical Literature

HOUSING CONDITIONS AND ANXIETY LEVELS IN MICE

In order to assess differences in anxiety levels related to housing, a study by Sherwin and Olsson (2004, *Animal Welfare*, 13: 33–38) examines self-administration of the anxiolytic Midazolam in mice housed in three different conditions. The three housing conditions (each with three mice per cage) are: “Standard” (standard cages with standard husbandry), “Unpredictable” (standard cages with unpredictable events), and “Enriched” (larger cages with an enriched environment). When given the option of drinking Midazolam (0.08 mg/ml) solution or autoclaved tap water, mice in standard laboratory housing drank more of the Midazolam solution than did mice in enriched housing. These results support the hypothesis that mice in standard laboratory housing are more anxious than mice in enriched conditions and that enrichment reduces anxiety within the home-cage. The authors point out that if standard laboratory cages compromise animal welfare, the validity of research using mice from standard cages may be in question.

EXPERTS CONVENE TO ADDRESS ANIMAL PAIN RESEARCH AND TREATMENT

In September 2002 the Mayday Fund convened a workshop on “A Cross-Species Approach to Pain and Analgesia” in Warrenton, Virginia. Twenty-nine experts addressed animal pain research and treatment. The workshop report, published in a recent issue of the *Journal of the American Veterinary Medical*

Upcoming Conferences

IACUC 101

- ▶ Sponsored by the Office of Laboratory Animal Welfare and Pennsylvania State University
- ▶ November 2, 2004
- ▶ State College, Pennsylvania
- ▶ For more information, go to www.research.psu.edu/orp/ANI/IACUC101/iacuc_home.htm

Advances in the Care and Use of Laboratory Animals

- ▶ In conjunction with the International Council for Laboratory Animal Science (ICLAS) and the Federation of South American Societies and Associations of Laboratory Animal Science Specialists
- ▶ November 9–12, 2004
- ▶ Buenos Aires, Argentina
- ▶ For more information, go to www.iclas.org/Events.htm

5th World Congress on Alternatives and Animal Use in the Life Sciences

- ▶ Sponsored by the Alternatives Congress Trust
- ▶ August 21–25, 2005
- ▶ Berlin, Germany
- ▶ For more information, go to www.ctw-congress.de/act2005

Association (Paul-Murphy et al., 2004, 224(5): 692–697), discusses gaps in current knowledge of animal pain and action plans that may bridge these gaps. Participants identified several technical and policy problems, including lack of knowledge regarding animal pain mechanisms and species-specific responses to pain treatment; lack of formal training in analgesia for veterinary students and veterinarians; lack of research and education focused on animal pain and analgesia; and lack of pain assessment methods. Recommendations include creating meaningful species-specific, validated pain scales; supporting a multidisciplinary approach to treating animal pain; creating a special interest group in the International Association for the Study of Pain; improving funding for pain management research; and informing the public about animal pain. The expert group prioritizes improving the understanding and alleviation of animal pain and hopes that professional associations and societies will develop appropriate position statements and action plans regarding the study and treatment of pain.

Statistics on Animal Use Pain & Distress

CANADA RELEASES SURVEY OF ANIMAL USE FOR 2001

The Canadian Council on Animal Care (CCAC) recently released animal use statistics for 2001. The number of animals used in scientific procedures for research, testing, and teaching totaled 2,136,329—an 8.5% increase from 2000. However, the number of nonhuman primates used decreased by 25%. Mice, rats, fish, and domestic birds accounted for 87% of the total number of animals, a pattern consistent with preceding years. According to Canada's pain and distress classification system, 25% of the animals

used experienced moderate to severe distress or discomfort (a slight decrease from 2000) and 5% experienced severe pain (a slight increase from 2000). Seventy-two percent of the animals who experienced severe pain (mostly mice, fish, guinea pigs, and domestic birds) were used for regulatory testing of products. To view the results in their entirety, visit www.ccac.ca/english/facts/Facframeintro.htm.

Attitudes & Public Opinion

BRITISH DISAPPROVE OF RESEARCH INVOLVING ANIMAL PAIN AND DISTRESS

An August 2003 poll of 1,000 adults across the United Kingdom found that 76% of respondents believe that the government should prohibit experiments on live animals that cause pain, suffering, distress, or lasting harm. Conducted by TNS Media on behalf of the British Union for the Abolition of Vivisection, the poll also found that a similar percentage (74%) believe that detailed information should be made available to the public about what individual animal experiments entail and why they are carried out. In addition, 70% feel the government has a key responsibility in funding the development of nonanimal test methods. Respondents were as opposed (80–90%) to the use of rats or mice in experiments that cause pain, suffering, or lasting harm as they were to the use of cats, dogs, horses, monkeys, and rabbits in such experiments.

Special Feature

PUBLIC ATTITUDES TOWARD ANIMAL RESEARCH: HISTORICAL PERSPECTIVE

As The HSUS celebrates our fiftieth anniversary this year, we have

examined how public opinion toward animal research has changed in the last half-century. Most people supported animal research in the late 1940s, with very few disapproving. By the mid-1980s, however, opposition increased and has remained steady at 30–40%, although this number fluctuates according to various factors such as species used, type of research, involvement of pain and/or suffering, and public trust.

In 1949 a small percentage of the public had concerns about specific species in research (e.g., dogs), but by 1983 64–89% expressed concern for dogs, marine mammals, horses, birds, cats, farm animals, rabbits, and fish, while a much lower percentage (21–34%) expressed concern for rodents and reptiles (Doyle, Dane, Bernbach, Inc., 1983, as cited in Herzog, Rowan, & Kossow, 2001). This trend was documented through 1989. More recently, 52% of adults disagreed with the use of dogs and chimpanzees in research that produces new information about human health problems (National Science Board, 2002, *Science and Engineering Indicators*—2002, Arlington, VA: National Science Foundation).

Despite less concern for some species, support for research on all species declines when it involves pain or distress; this issue was largely unaddressed in opinion polls until the 1980s. From 1985 to 1996, opposition to research that causes pain and injury increased by 15% (National Science Board, 1985–1998, as cited in Herzog, Rowan, & Kossow, 2001). In 1999 in the United Kingdom, the number of people approving of research on mice dropped by at least 18% when it involves pain, illness, or surgery and dropped by at least 20% for monkeys (Aldhous, Coghlan, & Copley, 1999, as cited in Herzog, Rowan, & Kossow, 2001). A 2001 survey found that 60–75% of Americans disapprove of research involving moderate to severe pain

continues on page 4

and/or distress, respectively (The HSUS, 2001, www.hsus.org/lace/13330). In the United Kingdom (TNS Media, 2003, as cited in British Union for the Abolition of Vivisection, 2003), 76% of respondents believed that the government should prohibit experiments on any live animals that cause pain, suffering, distress, or lasting harm, and they were equally opposed (80–90%) to the use of rats or mice in such research as they were to the use of cats, dogs, horses, monkeys, and rabbits.

Disease research has been more widely accepted than cosmetics testing. In 1949 19% of respondents objected to certain uses of animals, showing that people were already placing importance on certain types of research over others (National Society for Medical Research, 1949, as cited in Rowan, Loew, & Weer, 1995). From 1985 to 1990, a small percentage opposed animal testing of medical products, while those opposed to cosmetics testing increased. People have also been increasingly concerned about the treatment of laboratory animals. In 1994 51% of people refused to buy products when the ethical treatment of animals was called into question (Food Marketing Institute, 1991–1994, as cited in Herzog, Rowan, & Kossow, 2001).

Overall, opinion polls have demonstrated that public concern about animal research is steadily increasing. The trend covers the period during which the Institutional Animal Care and Use Committee (IACUC) system has been in place. Far from reassuring the public that animals are being well treated, the IACUC system seems to have had a neutral or possibly negative effect on public support for research, a finding that the research community and policymakers should address.

REFERENCES:

- British Union for the Abolition of Vivisection (2003). Report Winter 2003 (pp. 20–21). London, UK: BUAV.
- Herzog, H., Rowan, A. N., & Kossow, D. (2001). Social attitudes and animals. In D. J. Salem & A. N. Rowan (Eds.), *The state of the animals: 2001* (pp. 55–69). Washington, DC: Humane Society Press.
- Rowan, A. N., Loew, F. M., & Weer, J. (1995). *The animal research controversy: Protest, process, and public policy*. Boston, MA: Center for Animals and Public Policy, Tufts University School of Veterinary Medicine.

Recent Publications

Gordon, C. J. (2004). Effect of cage bedding on temperature regulation and metabolism of group-housed female mice. *Comparative Medicine*, 54(1): 63–68.

Varner, J., Clifton, K. R., Poulos, S., Broderson, J. R., & Wyatt, R. D. (2004). Lack of efficacy of injectable ketamine with xylazine or diazepam for anesthesia in chickens. *Lab Animal*, 33(5): 36–39.

Warn, P. A., Brampton, M. W., Sharp, A., Morrissey, G., Steel, N., Denning, D. W., & Priest, T. (2003). Infrared body temperature measurement of mice as an early predictor of death in experimental fungal infections. *Laboratory Animals*, 37(2): 126–131.

Pain & Distress Report

The *Pain & Distress Report* provides laboratory animal veterinarians, technicians, oversight committees, and others with up-to-date information on issues regarding pain and distress in laboratory animals.

E-mail ari@hsus.org for a free subscription to the electronic version of the newsletter; copies are also available online at www.hsus.org/ace/11401. Please share this report with your colleagues and IACUC members.

THE HUMANE SOCIETY OF THE UNITED STATES

2100 L Street, NW, Washington, DC 20037
202-452-1100 ■ www.hsus.org

ADDRESS SERVICE REQUESTED

PRESORTED
First Class Mail
U.S. Postage
P A I D
Washington, DC
Permit #2406

Promoting the protection of all animals