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The *Pain & Distress Report* is available online at www.hsus.org/pain_distress_report.

THE HUMANE SOCIETY
OF THE UNITED STATES



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

Policies & Perspectives

PRIMATE LAWSUIT REINSTATED

The 9th U.S. Circuit Court of Appeals in San Francisco, California, reinstated a lawsuit on November 22, 2006, that challenges the failure of the U.S. Department of Agriculture (USDA) to promulgate standards that promote the psychological well-being of captive nonhuman primates in laboratories, zoos, and other regulated entities. The suit—filed by the Animal Legal Defense Fund, the Animal Welfare Institute, and three individuals—seeks to compel the USDA to set enforceable and humane standards. Although standards were adopted in 1991, following the 1985 amendments to the Animal Welfare Act, they were soon determined by the USDA and others to be too vague and difficult to enforce. As a result, the USDA published a draft policy in 1999, but this policy has not yet been adopted. A district court initially dismissed the lawsuit in 2004, claiming that the plaintiffs “failed to establish that the Secretary [of Agriculture] has genuinely failed to meet this statutory duty.” The plaintiffs, alleging that the USDA’s decision not to finalize the policy was “arbitrary and capricious” and violated the Animal Welfare Act, convinced the federal appeals court to order the lower court to review the case.

OPEN ACCESS TO RESEARCH RESULTS

Four major councils that fund research in the United Kingdom recently introduced policies requiring open access to the published results of all research

funded by them. The Medical Research Council, Biotechnology and Biological Sciences Research Council, Economic & Social Research Council, and National Environmental Research Council began requiring deposition into an open access repository as of October 1, 2006.

While this new policy is a step in the right direction, availability of information on research that was not published for any number of reasons would also be beneficial to avoid duplication of studies.

Statistics on Animal Use & Pain & Distress

BRITISH ANIMAL USE STATISTICS FOR 2005

Statistics of Scientific Procedures on Living Animals: Great Britain 2005 was recently released by the British Home Office. The total number of animals used during 2005 was 2,812,850, an increase of 1.2 percent since 2004. Similar to 2004, approximately 60 percent of procedures were performed with no anesthesia, 20 percent with general anesthesia with recovery, 10 percent with local anesthesia, 7 percent with general anesthesia at the end of the procedure without recovery, and 3 percent with general anesthesia throughout without recovery. Mice, rats, and “other rodents” were used in approximately 84 percent of the procedures, followed by fish (8 percent), birds (4 percent), and guinea pigs (1 percent), as well as a variety of other mammals, amphibians, and reptiles.

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Statistics on Animal Use & Pain & Distress

From 2004, the number of primates used increased by approximately 12 percent. Breeding procedures accounted for 36 percent of animals used, followed by fundamental biological research (33 percent), applied research (including human and veterinary pharmaceutical development and testing) (26.5 percent), "protection of man, animals, or the environment" (3.7 percent), and direct diagnosis (0.5 percent). Similar to 2004, genetically modified animals were used in 33 percent of procedures. The full text of the report can be found at www.homeoffice.gov.uk/rds/pdfs06/spanimals05.pdf.

In 2005, at the Fifth World Congress on Alternatives and Animal Use in the Life Sciences, an international group of animal protection organizations, including The Humane Society of the United States (HSUS), presented a resolution calling for an end to the use of nonhuman primates in biomedical research and testing. It was considered a first step toward convincing governments, scientists, industry, funders, and regulators that finding alternatives is an urgent priority. While the increase in nonhuman primate use in the United Kingdom from 2004 to 2005 is disappointing, it is hoped that the resolution and corresponding efforts will decrease these numbers worldwide in the near future.

SWISS ANIMAL USE STATISTICS FOR 2005

The Swiss government has released its 2005 report on the use of animals in research and testing. The total number of

animals (including warm-blooded animals, amphibians, reptiles, fish, and invertebrates) used in research and testing was 550,505—an 11-percent increase since 2004, which was attributed to an increase in the use of transgenic mice, as well as in animals used for fundamental and medical research development and quality control research. Seventy-three percent of the animals experienced minimal to no pain, 23 percent experienced moderate pain, and 4 percent experienced severe pain. Similar to previous years, the most commonly used species were mice and rats (approximately 90 percent of all species used). The three most common animal uses were medical research and development and quality control, biological and medical studies of a fundamental nature, and toxicity studies.

From the Technical Literature

ULTRASONIC VOCALIZATIONS MEASURE PAIN

Oliveira and Barros (2006, *Anesthesia and Analgesia*, 102: 832–839) demonstrate that ultrasonic vocalizations (USVs) can be an indicator of pain in rats. The researchers monitored a range of motor responses and USVs with audio and video for 40 minutes following injection of 12.5 percent formalin in the forepaw. USVs were detected mostly during the 5–20 minute interval, labeled interphase. The effect of morphine on USV during the formalin test was then assessed. Different doses and combinations of morphine, naloxone, and saline were given at 15 and 30 minutes following formalin injection. Rats were observed with video and audio for 40 minutes, and number and duration of USVs were recorded for five-minute periods. A pain intensity score was then calculated for each animal based on the amount of time spent in each behavioral category (0=injected paw not favored, 1=injected paw has little or no weight on it, 2=injected paw is elevated, and 3=injected paw is licked, bitten, or shaken). No dose-response relationship between morphine and USV was detected; however, all morphine doses decreased the number of USVs.

The authors concluded that USVs are a useful behavioral measure of the affective state of rats during interphase.

The authors discuss their findings primarily with reference to measuring pain in humans; however, USV can be one tool to monitor the welfare of rats in various models that cause pain and also to assist in the determination of humane endpoints.

Resources & Services

SEEKING NOMINATIONS FOR 2007 RUSSELL AND BURCH AWARD

Nominations for the Russell and Burch Award, which recognizes outstanding scientific contributions to the advancement of alternative methods in the areas of biomedical research, testing, or higher education, are being accepted by The HSUS. The \$5,000 prize will be awarded in August 2007 at the Sixth World Congress on Alternatives and Animal Use in the Life Sciences in Tokyo, Japan (see box on page 3). Candidates are judged on the scientific merit of their contributions to the alternatives field and their professional commitment to refinement, reduction, and replacement (the Three Rs of the alternatives approach).

Nominations should include a cover letter explaining the person's suitability for the award, curriculum vitae, and representative published articles. Self-nominations are accepted. The deadline for nominations is March 31, 2007. Applications should be sent to: Russell and Burch Award, Animal Research Issues, The HSUS, 2100 L Street, NW, Washington, DC 20037. For more information, call 301-258-7747, fax 301-258-7760, or email ari@hsus.org. See www.hsus.org/animals_in_research for more information.

WORLD CONGRESS CALL FOR ABSTRACTS

Submissions for presentations and posters are being accepted by the Sixth World Congress on Alternatives and Animal Use in the Life Sciences held in Tokyo, Japan (see box on page 3). Abstracts should be submitted by March

Recent Publications

Simon-Hettich, B., Rothfuss, A., & Steger-Hartmann, T. (2006). Use of computer-assisted prediction of toxic effects of chemical substances. *Toxicology*, 224 (1–2): 156–162.

Gerner, I., Liebsch, M., & Spielmann, H. (2005). Assessment of the eye irritating properties of chemicals by applying alternatives to the Draize Rabbit Eye Test: The use of QSARs and *in vitro* tests for the classification of eye irritation. *ATLA*, 33 (3): 215–237.

31, 2007. For more information see www.ech.co.jp/wc6/callforpapers.html.

WORKING GROUP REPORT ON ENRICHMENT

The Federation of European Laboratory Animal Science Associations Working Group on the Standardization of Enrichment has published its *Working Group Report*. Established to provide guidance on enriching enclosures to meet species-specific and individual needs to guarantee animal welfare and minimize data biasing, the report recommends creating databases and performing surveys of established enrichment programs, completing systematic scientific evaluation of enrichment components, identifying new types of enrichment based on assessment of the animals' needs, and encouraging a description of enrichment in the Materials and Methods section of publications. To view the report in its entirety, go to www.lal.org.uk/pdf/files/FELASA_Enrichment_2006.pdf.

MENTAL HEALTH AND WELL-BEING IN ANIMALS

Mental Health and Well-Being in Animals, edited by Franklin McMillan and published by Blackwell Publishing in 2005, provides up-to-date expert information organized into four sections. Part One, "Foundations of Animal Mental Health and Well-Being," includes chapters on mentation, an ethological perspective on emotions, the experience of pleasure, the science of suffering, and affective-social neuroscience approaches to understanding core emotional feelings. Part Two, "Emotional Distress, Suffering, and Mental Illness," includes chapters on animal boredom; stress, distress, and emotion; the mind-body connection; mental illness; pharmacological treatment of emotional distress and disorders; and emotional maltreatment. Part Three, "Mental Wellness," includes chapters on quality of life, giving power

to animals, psychological well-being, true happiness, and a philosophical view on animal happiness. Part Four, "Special Populations," concludes with chapters on animal well-being and research outcomes as well as mental well-being in farm and laboratory animal species and captive birds.

Similarly, *Pleasurable Kingdom: Animals and the Nature of Feeling Good*, written by Jonathan Balcombe, Ph.D., and published by Macmillan in 2006, explores the ability of animals to feel pleasure and enjoy themselves. For more information, go to www.pleasurablekingdom.com.

OLAW FAQs AND NEW DIRECTOR

A new Frequently Asked Questions (FAQ) section is on the National Institutes of Health (NIH) Office of Laboratory Animal Welfare (OLAW) website to provide guidance on topics not previously addressed by OLAW, such as the Freedom of Information Act, postapproval animal monitoring, and rodent cage density. The FAQs and links to previously published articles can be found at <http://grants.nih.gov/grants/olaw/faqs.htm>.

Also, Dr. Patricia Brown has been promoted from acting director to director of OLAW in the Office of Extramural Research.

NIH REPORT ON RESPONSES TO RFI

The NIH *Report on the Review of Responses to and Recommendations Concerning (the) Request for Information (RFI): Standards for the Care and Use of Laboratory Animals*, announced in November 2005 (NOT-OD-06-011), is now available online at http://grants.nih.gov/grants/olaw/rfi_lab_animal_standards/RFI-Report.pdf. The report explores the need to update the *Guide for the Care and Use of Laboratory Animals* and recommends creation of a Web-based

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Upcoming Conferences

IACUC Advanced

- ▶ Hosted by Scientists Center for Animal Welfare
- ▶ April 30, 2007
- ▶ Boston, Massachusetts
- ▶ www.scaw.com/iacuc-advanced.htm

IACUC 101

- ▶ Hosted by Morehouse School of Medicine
- ▶ May 3, 2007
- ▶ Atlanta, Georgia
- ▶ <http://grants.nih.gov/grants/olaw/iacuc101s.htm>

10th FELASA Symposium and XIV ICLAS General Assembly & Conference

- ▶ Hosted by the Federation of European Laboratory Animals Science Associations and the International Council for Laboratory Animal Science
- ▶ June 11–14, 2007
- ▶ Villa Erba, Cernobbio (CO) Italy
- ▶ www.felasa-iclas2007.com

6th World Congress on Alternatives & Animal Use in the Life Sciences

- ▶ Hosted by the Japanese Society of Alternatives to Animal Experiments, the Alternative Congress Trust, and the Science Council of Japan
- ▶ August 21–25, 2007
- ▶ Tokyo, Japan
- ▶ www.ech.co.jp/wc6

Pain & Distress Report

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Resources & Services

document, periodic revisions to Appendix A, inclusion of new references, enhanced communication between scientific societies, and continued development of new reports that may fill voids in Appendix A. The Public Responsibility in Medicine & Research annual conference on March 26–27 will have sessions on this topic.

WORKSHOP SUMMARY AND SLIDES AVAILABLE

The program, speaker slides, and published summary for the workshop on Progress and Barriers to Incorporating Alternative Toxicological Methods in the U.S., held by the International Society of Regulatory Toxicology and Pharmacology in Baltimore, Maryland, on November 17–18, 2005, are available online at www.isrtp.org.

Attitudes & Public Opinion

UK POLL EXAMINES ATTITUDES TOWARD FUNDING ANIMAL LABS

A recent poll conducted by ICM Research for *Newsnight*, a television program in the United Kingdom, indicated that more than half

of British taxpayers believe their money should not be used to build more laboratories to carry out tests on animals for medical research. Of the 1,001 people surveyed, 57 percent of respondents said they did not want public money spent on building laboratories, while 40 percent felt that it was right that taxpayers' money be spent in that manner. Three percent were unsure.

SCIENTISTS' THOUGHTS ON ANIMAL RESEARCH

In an online poll of 1,682 voluntary responses by international scientists who subscribe to *Nature*, of the 52 percent who conducted experiments on animals, 81 percent said they did not have ethical misgivings about their use of animals for research and 94 percent felt able to freely discuss any ethical concerns with their peers and supervisors. However, 60 percent said their institution had not shown a preference either way as far as encouraging them to communicate with the public, 17 percent said their institution encourages communication and offers assistance, 12 percent said their institution encourages communication but offers no assistance, and 11 percent said their institution encourages them not to communicate with the public. Of all respondents, 71

percent thought more discussion within the biomedical community about animal use is needed. Approximately 75 percent felt that animal research was essential for advancing biomedical science; 63 percent felt that the goal of eliminating animal experiments in the long term was desirable but unachievable; 23 percent felt it was undesirable; and 15 percent felt it was desirable and achievable. As for legislation governing animal use in their respective countries, 70 percent felt it to be about right, 16 percent felt it was not strict enough, and 14 percent felt it was too strict. Slightly more than 75 percent of respondents felt that the animal protection movement makes it difficult for researchers to voice an opinion on animal research.

Helpful Website

The European Centre for the Validation of Alternative Methods has a new publicly available database (DB-ALM)—<http://ecvam-dbalm.jrc.cec.eu.int>—that provides factual information on advanced and alternative techniques for toxicology assessments, including method-summary descriptions and protocols, evaluation studies, details on formal validation studies, and individual test results.

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/pain_distress_report. Please share this report with your colleagues and IACUC members.

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