Professional Guidelines

- Bibliography
- Useful World Wide Web Sites

Bibliography


Descriptors: justification of research, personnel, care and housing of animals, acquisition of animals, experimental procedures, euthanasia, field research, educational use of animals.


Descriptors: general considerations, IACUCs, collecting, restraint and handling, marking, housing and maintenance at field sites, disposition following studies, references.


NAL call number: SH1.F54

Descriptors: general considerations, IACUCs, collecting, restraint and handling, marking, housing and maintenance at field sites, disposition following studies, references.


2007 Update Available at [http://www.mammalsociety.org/articles/guidelines-american-society-mammalogists-use-wild-mammals-research-0](http://www.mammalsociety.org/articles/guidelines-american-society-mammalogists-use-wild-mammals-research-0)

NAL call number: 410 J823

Descriptors: background and history, field work in mammalogy, why mammalogists collect specimens, what is an adequate sample, sampling in threatened habitats, compliance with laws and regulations, methods for collecting specimens, live-trapping and netting, kill- trapping and shooting, methods for sampling tissues from live animals, responsibility for dependent offspring, social interactions, methods of euthanasia, methods for marking and tracking, holding and transporting captive animals, maintenance of wild-caught individuals in captivity, releasing previously captured live animals, health precautions.


Descriptors: animal observation, significant indicators of pain and distress, scoring significant behavioral and physiological observations to set endpoints, pilot studies to determine appropriate endpoint, determining frequency of observations, defining responsibility for observations, training personnel in clinical animal observations, role of the IACUC, monoclonal antibody production, cancer research, toxicology, pain research, infectious disease studies, vaccine trials, animal models with potential for significant levels of pain and distress, species specific signs of pain and distress, information sources, understanding normal animal behavior, recognition and assessment of pain and distress, laboratory animals, fish, farm animals, examples of observational checklists used to determine endpoints.


Descriptors: philosophy of an animal user training program, course design, resource material, access to the training program, performance evaluation, recommended syllabus for an institutional animal user training program.


Descriptors: general principles, potential benefit of the research, replacement alternatives, animal model selection, reduction of animal use/numbers, refinement of experimental technique, setting endpoints, physical restraint, invasive/stressful procedures, euthanasia, hazardous materials, teaching protocols, wildlife field studies, reading list.


Descriptors: methods used for production, investigator and animal care committee responsibilities, education, proposals to create new strains, proposals to use existing strains, accounting, containment, other regulations, reading list.


NAL call number: QL55 A1I43

Descriptors: overview of species, anurans, frogs, salamanders, caecilians, vendors, captive breeding, field collection, importation, shipping, animal welfare regulations and policies, husbandry and housing, caging, heating, ventilation, and air conditioning, lighting, diet, water quality, sanitation, maintenance in the field, safety considerations, toxins, zoonoses, use in research, identification techniques, cage numbering, pattern marking, toe-clipping, tattooing and dye injecting, branding, tagging, transponder implantation, anesthesia--chemical, gas, hypothermia, surgery, euthanasia physical and chemical methods.


NAL call number: QL55 A1I43

Descriptors: principal investigator, animal care personnel, IACUC members, overview of current uses of fish in research and commerce, marine and freshwater species used in research, factors to consider when determining choice of species, vendors, ease of maintenance, space, sources of fish, state and federal permits and licenses, summary of applicable animal welfare laws and guidelines, developing procedures for housing, husbandry, and breeding, centralized facilities, construction materials, water quality, diet, temperatures, illumination, pH, salinity, alkalinity, and...
hardness, dissolved oxygen, nitrogen, artificial sea water, shipping, acclimation, quarantine, research laboratories, dangerous aquatic animals and safety conditions, traumatogenic animals, venomous fish, electrogenic animals, zoonoses, examples of uses of species in biomedical research, anesthesia, analgesia, and euthanasia--overview of available agents, IACUC protocol review.


Descriptors: institutional policies, general guidelines for animal husbandry, animal health care, physical plant, beef cattle husbandry, dairy cattle husbandry, horse husbandry, poultry husbandry, sheep and goat husbandry, swine husbandry, veal calf husbandry, zoonotic diseases, anesthesia and analgesia, euthanasia, organizations.


Descriptors: IACUCs, permits, investigator impact, collecting and trapping, marking, transport, housing and captive breeding, major and minor manipulative procedures, anesthesia, euthanasia, code of ethics.


NAL call number: QL55 A1I43

Descriptors: overview of species, composition, characteristics, and uses in research, species availability, vendors, captive breeding, field collection, shipping, husbandry and housing, heating, ventilation, lighting, air conditioning, diet, sanitation, safety considerations, toxins and other weaponry, zoonoses, identification techniques, anesthesia, euthanasia, surgery, animal welfare regulations and policies, behavioral complexity, ethical issues.

*Guiding Principles for the Care and Use of Animals in the Field of Physiological Sciences (1990).* *Journal of the Physiological Society of Japan* 52(1): 27-29.

NAL call number: QP1.N5

Descriptors: human, animal welfare, research, ethics, ACUC.


NAL call number: QH321.L33 1996

Descriptors: introduction, containment of biohazards, regulations, classification of biological agents according to risk, physical containment levels, large scale production of microorganisms, laboratory design, safety equipment, safety cabinets, fume hoods, filtration systems, bibliography, glossary.


Abstract: Incorporates recent research on commonly used species, including farm animals. Covers institutional policies and responsibilities, animal environment, husbandry, and management, veterinary care, and physical plant.

Descriptors: alternatives, laboratory animals, U.S. Public Health Service, laboratories, animal husbandry, veterinary care.


NAL call number: SF604.E3

Descriptors: laboratory animals, animal welfare, training, bibliography.

NAL call number: QL55 A1I43
Descriptors: summary of policies from 30 facilities in the United States, monoclonal antibodies, selection of animals, immunization protocols, priming agents, inoculation of hybridoma cells, abdominal paracentesis, clinical observations, alternatives, polyclonal antibodies, selection of animals, antigen preparation, antigen-adjuvant emulsions, Freund's adjuvants and alternatives, injection site selection and preparation, routes, volumes, and sites of administration, post-injection observations, blood collection, restraint, institutional resources, personnel safety.

NAL call number: QL55 A1I43
Descriptors: wild rodent species, voles, deer mice, cotton rats, ground squirrels, trumpet-tailed rats or degus, multimammate rat, woodchucks, uses in research, special husbandry considerations, potential zoonoses and biohazards.

Descriptors: laboratory animals, animal experimentation, animal welfare.

Descriptors: animal experimentation, laboratory animals, animal welfare, federal guidelines.

Descriptors: laboratory animals, animal experimentation, animal welfare.

Available at [http://netvet.wustl.edu/species/reptiles/pough.txt](http://netvet.wustl.edu/species/reptiles/pough.txt)
Descriptors: research and teaching, biology, physical environment, biological environment, marking, breeding, environmental conditions, medical care, health precautions for release of animals, health precautions for caretakers.

NAL call number: 410.9 P94
Descriptors: animal health assessment, likelihood of dispersion of microorganisms of interest throughout the quarantine population during the quarantine period, interval necessary for exposed rodents to undergo seroconversion or for microorganisms to reach detectable numbers, principles of an effective program, passive vs active programs, confidence level of detection, risk of infection, cost, scientific considerations, type of caging, type of secondary enclosure, sentinel exposure method, target organisms, quarantine programs in practice, overview of program at St. Jude Children's Research Hospital, vendor specifications, sources of infection for rodents.

Secord, D.C. and H.C. Rowsell (1974). **Proper use of animals in schools: An educational program.** *Canadian...*

Descriptors: animal testing alternatives, committees, guidelines, information services, training, regulations.

---

**Useful World Wide Web Sites**

**Institutional Animal Care and Use Committee Guidebook**

**Guide for the Care and Use of Laboratory Animals**
http://www.nap.edu/openbook.php?record_id=5140

**Tutorial on the PHS Policy on Humane Care and Use of Laboratory Animals**

**Sample Documents for Implementation of the PHS Policy on Humane Care and Use of Laboratory Animals**

**National Institutes of Health Animal Research Advisory Committee Guidelines**
http://oacu.od.nih.gov/ARAC/index.htm

This site includes: (1) guidelines for NIH intramural research program compliance with USDA annual reporting requirements, revised 4/09/97; (2) definitions and behavioral/clinical signs of pain; (3) guidelines on classifying deficiencies identified during semiannual reviews, revised 1/13/99; (4) guideline regarding significant changes to animal study proposals, revised 12/9/98; (5) NIH animal transportation guidelines, revised 2/10/99; (6) NIH animal transfer agreement, 2/12/97; (7) guidelines for housing animals in containment housing systems, reapproved 1/13/99; (8) NIH intramural position paper - "housing multiple species of large laboratory animals", revised 1/13/99; (9) guidelines for diet control in behavioral studies, reapproved 2/10/99 (10) Interagency Research Animal Committee (IRAC) recommendation on LD50 testing, reapproved 5/8/96 (11) NIH intramural research program - guidelines for survival rodent surgery, reapproved 2/10/99; (12) oocyte harvesting in Xenopus laevis, revised 2/10/99; (13) NIH intramural program guidelines for the prevention and control of tuberculosis in nonhuman primates, reapproved 2/10/99; (14) Interagency Research Animal Committee recommendations on toe clipping of animals, reapproved 5/8/96; (15) ascites production in mice, revised 3/11/98; (16) endpoints in animal study proposals, revised 3/8/00; (17) 1993 report of the AVMA panel on euthanasia, 1/15/93; (18) guidelines for the euthanasia of mouse and rat fetuses and neonates, revised 11/10/98; (19) minimum requirements for protective clothing in animal facilities, reapproved 2/10/99; (20) ACUC Communications, revised 11/10/98; (21) recommendations for consideration in the research use of inflammatory agents - complete Freund's adjuvant (cfa), reapproved 5/8/96; (22) guideline on pain and distress in rodents and rabbits: responsibilities, recognition and alleviation, approved 3/8/00.

---

Last updated July 26, 2001
World Wide Web Resources

Because World Wide Web Resources are most easily accessed via computer, this listing will mainly include web addresses of sites that serve as clearinghouses for specific topics. Selected web sites from universities that provide comprehensive listings of institutional policies, guidelines, and forms are also included. Other web sites may be found in each chapter; organizational websites will be found in the Organizations chapter.

Altweb  
http://altweb.jhsph.edu/

Altweb is a site for news, information, discussion, and resources from the field of alternatives to animal testing. This site is a collaborative effort funded by the Alternatives Research & Development Foundation, the Doerenkamp - Zbinden Foundation, the Humane Society of the United States, the Office for Protection from Research Risks at the National Institutes of Health, and the Procter & Gamble Company. It is being developed by the Center for Alternatives to Animal Testing at Johns Hopkins University, in collaboration with the Altweb Project Team, to serve academic, industrial and government scientists, educators, the media, and the general public.

Altweb is intended to foster the development of scientifically acceptable in vitro and other alternatives to animal testing. Alternatives are defined as methods which reduce animal use, replace whole animal tests, or refine existing tests by minimizing animal distress.

Need help locating alternatives databases or funding sources? Check out Science & Regulations. Want to learn about the latest software and other computer resources available for your junior high? See Educational Resources. Want to know more about the history of the alternative movement? See General information.

Animal Care, USDA, Animal and Plant Health Inspection Service  
http://www.aphis.usda.gov/ac/

This site provides access to the USDA agency that administers two laws that seek to ensure the humane handling of animals: the Animal Welfare Act (AWA) and the Horse Protection Act (HPA). Included are:

- full-text versions of the Animal Welfare Act and the Horse Protection Act, USDA animal welfare regulations, standards, and policies;
- Annual report to Congress;
- lists of licensed or registered research facilities, dealers, breeders, carriers, and exhibitors;
- fact sheets and other miscellaneous information;
- Freedom of Information records;
- publications; and
- Missing Pet Network.

Animal Welfare Information Center (AWIC), United States Department of Agriculture (USDA)  
http://www.nal.usda.gov/awic/

This site provides access to:

- full-text versions of all pertinent Federal laws, regulations, guidelines and policies, and links to international laws;
- AWIC newsletters;
- AWIC publications;
links to databases, information on alternatives, farm animals, and organizations;

- links to the National Agricultural Library, Animal and Plant Health Inspection Service, Office for Protection from Research Risks, and NetVet.

**Institute of Laboratory Animal Resources Journal**

[http://dels.nas.edu/ilar/](http://dels.nas.edu/ilar/)

**Institute of Laboratory Animal Resources Journal** is the quarterly, peer-reviewed publication of the Institute for Laboratory Animal Research (ILAR), which is a unit of the National Research Council, National Academy of Sciences. ILAR Journal provides thoughtful and timely information for all those who use, care for, and oversee the use of laboratory animals. Provides access to online version of the journal and many back issues; a searchable index is available.

**IACUC Training and Learning Consortium (IACUC TLC)**


Few people know it, but the idea for this site was first proposed by Ken Boschert several years ago. The site has been developed and maintained under the direction of Nicole Duffee, DVM, Washington University. The IACUC Training and Learning Consortium Task Force is an ad hoc committee established by the American Association for Laboratory Animal Science (AALAS) with the charges:

1. To produce a comprehensive core course to train IACUC members.
2. To develop, design and provide oversight for this IACUC training course.
3. To develop, design and provide oversight for a Web site (www.iacuc.org) for comprehensive information and resources on all matters pertaining to IACUCs.
4. To establish a listerv (IACUC-FORUM) for IACUC members and staff to encourage dynamic information exchange on the IACUC process.
5. To establish an advisory group representing a national consortium of organizations with shared interest in the education and training of IACUC members to jointly sponsor the IACUC training initiative, with AALAS coordinating the effort.

This site provides access to:

- General Information | Listserv | Partners;
- Alternatives;
- Bibliography of IACUC Topics, Databases, Example Forms and Documents;
- Laws, Policies, Guidelines and Other Documents;
- Institutional Research Policies and Procedure Guidelines;
- Journals and Publications, Meetings, and Organizations;
- Training - IACUC members; and
- Training - Laboratory Animal Care and Use.

**Intramural Animal Care and Use (ACU) program of the National Institutes of Health (NIH)**


Although this page is intended to serve as an information resource for NIH scientists, Animal Care and Use Committee (ACUC) members, veterinarians, animal science specialists, and other NIH staff involved in the conduct of biomedical research at NIH, the information presented is certainly of use to other animal care and use committees. A very well-done site.

**Lab Animal IACUC Resource Page**

[http://www.labanimal.com](http://www.labanimal.com)

This site is provided by *Lab Animal* magazine and contains the following:

- IACUC Reading RoomRecent Lab Animal articles for the IACUC member. Browse article selections, and enjoy full-text access in either PDF or HTML formats.
Eastern University's IACUC quandaries. Perfect for training, or simply honing your review skills.

- Regulatory Updates
- IACUC-Related Links
  - IACUC Resources on the Web
  - Alternatives
  - Databases & Search Functions
  - Endpoints & Pain Management
  - Literature Search for Alternatives (USDA Policy 12)
  - Pain & Distress
  - Regulations and Policies
  - Training

Massachusetts Society for Medical Research (MSMR)
http://www.msmr.org/
This site provides access to the MSMR Nation-Wide Resources List - an interactive listing of state biomedical research organizations and national organizations that promote biomedical research. To access the home page of MSMR, click on the Home Page icon at the bottom of the page.

National Agricultural Library's (NAL) Web Gateway to AGRICOLA (AGRICultural OnLine Access)
http://agricola.nal.usda.gov/
AGRICOLA (AGRICultural OnLine Access) is a machine-readable database of bibliographic records created by the National Agricultural Library and its cooperators. Production of these records in electronic form began in 1970, but the database covers materials dating from the 16th century to the present. The records describe publications and resources encompassing all aspects of agriculture and allied disciplines, including plant and animal sciences, forestry, entomology, soil and water resources, agricultural economics, agricultural engineering, agricultural products, alternative farming practices, and food and nutrition. Auxiliary subjects that support NAL's Information Center activities, such as agricultural trade and marketing, rural information, and animal welfare, are also included.

National Library of Medicine's (NLM) Web Gateway
http://gateway.nlm.nih.gov/gw/Cmd
The NLM Gateway accesses multiple retrieval systems which:

- Provide an easy way to search the 11 million references and abstracts in the MEDLINE database.
- Use PubMed's retrieval engine to link to about 400 journals for full text of articles (some publishers may require a subscription) and provide pre-computed sets of relevant MEDLINE articles;
- Offer NLM's Medical Subject Headings for searching; and
- Use Loansome Doc for document delivery services (there may be local charges).

NetVet Veterinary Resources and the Electronic Zoo
http://netvet.wustl.edu/
Perhaps the Web's most comprehensive listing of animal-related web sites, NetVet & the Electronic Zoo were created by Ken Boschert, DVM, at Washington University's Division of Comparative Medicine, located in St. Louis, Missouri. Among this server's Web Pages are numerous views of Veterinary Medical and Animal resources available on the Internet and beyond. Topics include: What's New, a site Search engine, Career information, Education, Veterinary Specialties, Organizations, Meetings, Directory, E-Lists, Publications, Images, Government, Commerce, ElectronicZoo.

Office of Laboratory Animal Welfare (OLAW), NIH Office of Extramural Research
http://grants.nih.gov/grants/olaw/olaw.htm
This site provides access to the NIH agency that administers animal welfare assurances of Public Health Service fundholders. Information provided includes:

- Public Health Service Policy on Humane Care and Use of Laboratory Animals, March, 1996
- 1996 Guide for the Care and Use of Laboratory Animals, National Academy of Sciences
- Tutorial on the PHS Policy on Humane Care and Use of Laboratory Animals
- Sample Documents for Implementation of the PHS Policy on Humane Care and Use of Laboratory Animals
- Institutional Animal Care And Use Committee Guidebook, ARENA
- World Wide Web Resources for the IACUC - an excellent compilation of sites providing useful IACUC information.

### University IACUC Sites

**Arizona State University, Animal Care and Use**  
http://researchintegrity.asu.edu/animals

**Florida State University Laboratory Animal Program**  
http://www.research.fsu.edu/acuc/

**University of Arizona Institutional Animal Care and Use Committee Handbook**  
http://www.ahsc.arizona.edu/uac/iacuc/

**University of California, Irvine Animal Care and Use Program**  
http://www.research.uci.edu/ora/acup/index.htm

**University of Colorado Health Sciences Center Animal Care & Use Program**  
http://www.colorado.edu/VCResearch/integrity/animalcare/index.html

**University of Florida Animal Care & Use**  
http://nersp.nerdc.ufl.edu/~iacuc/index.html

**University of Minnesota, Research Animal Resources**  
http://www.ahc.umn.edu/rar/

**University of Nebraska-Lincoln, Institutional Animal Care and Use Committee**  
http://research.unl.edu/researchresponsibility/institutional-animal-care-program-iacp/

**University of Tennessee - Knoxville (UT-K), Office of Laboratory Animal Care**  
http://www.vet.utk.edu/olac/

[Top]