



## Fact Sheet

### Myth vs. Fact—Animals in Research

**Myth: Current federal regulations do not protect laboratory rodents.**

**Fact:** The Health Research Extension Act of 1985 made Public Health Service Policy the law. The Public Health Service Policy specifically regulates the care and use of all vertebrate animals used in research, testing, and education, giving mice and rats the same protections given primates, cats, and dogs. The U.S. Public Health Service supports approximately 40 percent of all biomedical research in this country.

**Myth: Animal research is scientific fraud, since animals and humans are different.**

**Fact:** There are many similarities between humans and various species of animals. For example, much of what we know about the immune system has come from studies with mice. Cats have helped us know more about sleep disorders such as SIDS, sleep apnea, and epilepsy. Much of what we know about the human heart and lungs has come from studies with dogs. Primates share 98 percent of human genes and most of what we know about the brain, heart disease, Alzheimer's, AIDS, viruses, hepatitis, and cancer has come from monkeys and chimpanzees.

**Myth: Millions of stolen pets are sold to research**

**Fact:** The majority of animals used in research in the U.S. (over 95%) are rats, mice, and guinea pigs obtained from scientific breeding centers. *Less* than ONE percent are dogs and cats obtained from breeding or occasionally from pounds. Approximately 50 percent of these animals are purpose-bred for research. 35 percent are purchased from 30 licensed United States Department of Agriculture (USDA) Class B dealers. These dealers must be licensed and follow rules by the USDA. Also, the government often inspects the dealers and research facilities to make sure research animals are not missing pets. The remaining 15 percent are purchased from shelters or pounds. Very few states allow cats and dogs to be purchased for research from animal shelters or the pounds. According to the Humane Society of the United States, between 8 to 10 million unclaimed dogs and cats are killed at the pounds each year because they were neither claimed by owners nor adopted. Only animals already scheduled to be euthanized by the pound or shelter are released to research. Laws prohibiting the use of pound animals in research mean that additional animals must be specially raised for research use, which increases costs and the total number of animal deaths. See Fact Sheet on "The Pet Theft Myth" for additional information.

**Myth: Scientists are concerned only about their research, not about the welfare of the experimental animals.**

**Fact:** Good science and good animal care are inseparable. Stressed or mistreated animals are not good research subjects. Instances of animal abuse are rare. Substantial evidence exists to show that animal research is conducted ethically and that federal and institutional humane guidelines are being followed.

**Myth: Institutional animal care and use committees (IACUCS) are rubber stamp committees that do little to guard the welfare of animals.**

**Fact:** Under law, if an IACUC rejects a project because of concerns about animal welfare, no one in the organization can overrule this decision. Federal and state inspections confirm that institutions with active and properly constituted IACUCs do very well in animal care and use. For the small number of institutions cited for deficiencies and violations, federal funding may be suspended.

**Myth: Animal experiments are needlessly duplicated.**

**Fact:** Unnecessary experiments are prevented both by rigorous scientific peer review of research proposals and by economic constraints. Projects are evaluated to assure that the absolute minimum number of animals is used. Computerized databases are checked to assure that the projects would not unnecessarily duplicate previous research. Competition for funding assures that redundant experiments are unlikely to be approved.

**Myth: Animal research is no longer necessary because there are non-animal alternatives to animal experiments.**

**Fact:** There are a variety of techniques available to the researcher that do not require the use of whole animals. For example, cell culture techniques, which use live cells derived from animals and humans, most of which need to be cultivated in animal or human serum (a derivative of blood), have proved to be useful alternatives to the use of whole animals, as has computer modeling and other non-animal techniques. Together, they play an important and growing role in biomedical research.

Yet, with all the promise they hold, alternatives to animal-based research cannot in the foreseeable future replace whole animal models in any comprehensive fashion. They cannot reproduce the interactions of intact biological systems (for instance, the nervous system and immune system) provided by live laboratory animals. Further, there is no alternative to the use of live animals if we wish to test whether or not a compound causes birth defects: if such a compound causes increased rates of fetal death or malformations in animals, it is virtually assured to cause some form of defect (perhaps different from the specific defect seen in animals) in human beings, and pregnant human beings should not be exposed to the compound. See the Fact Sheet on "Alternative Methods in Biomedical Research" for additional information.