Key Changes in the 2010 Guide for the Care and Use of Laboratory Animals

This June 2010, the National Research Council of the National Academies released pre-publication of the 8th revision of the Guide for the Care and Use of Laboratory Animals (Guide).

In an arrangement likely to be confusing and expensive, this incomplete pre-publication version of the Guide may be downloaded now from the National Academies Press' website for $21, and again later this year, after its final editing is complete.

First published in 1963 as the Guide for Laboratory Animal Facilities and Care, this Guide was revised in 1965, 1968, 1972, 1978, 1985, 1996, and 2010, in order to “...enhance animal well-being, the quality of research, and the advancement of scientific knowledge that is relevant to both humans and animals”.

Unlike animal welfare regulations promulgated by the Secretary of Agriculture under the Animal Welfare Act, compliance with standards of this Guide is required only by persons and institutions who received PHS funds for research involving animals.

Key Changes are:

1. Expanded information on topics such as transportation, pain and distress, euthanasia, and veterinary medicine is given. An acceptable veterinary program that offers a high quality of care and ethical standards is expected, regardless of the number of animals or species being maintained.

2. For the first time, the Guide contains information on the care and use of fish and other aquatic species, reflecting the growing use of these animals in research.

3. A framework for an Animal Care and Use Program is provided to help institutions integrate regulations, policies, and principles with day-to-day operations and management. Discussion of institutional policies and responsibilities, personnel and program management and oversight, occupational health and safety, and animal facility design and management is provided to help in developing an effective animal care and use program.

4. The updated Guide provides the first discussion of animal biosecurity practices. Animal biosecurity refers to all measures taken to contain, prevent, and eradicate infections that may cause disease or otherwise make laboratory animals unsuitable for research. Elements of a successful animal biosecurity program include ensuring that only animals in good health enter the facility; that materials such as food do not harbor infectious agents; and that practices are in place to limit cross contamination should an infectious agent be introduced. In addition, a comprehensive ongoing evaluation of animals’ health status is needed.

5. Environmental enrichment can enhance animal well-being, provide sensory and motor stimulation, and promote psychological health. Examples of enrichment include structural additions such as perches and visual barriers for monkeys and other nonhuman primates; elevated shelves for cats and rabbits, and shelters for guinea pigs; as well as resources such as novel objects and foraging devices and nesting material for mice. Like other environmental factors, enrichment may affect the experimental outcomes and should be appropriately controlled.

6. The utility of the performance standards approach for animal care and care practices is reaffirmed. The performance standards approach describes a desired outcome but with flexibility to those responsible for managing animal care and use in achieving this outcome.

7. The three Rs — replacement, refinement and reduction — continue to be the core foundation of the Guide for scientific laboratory animal use. The three Rs are a practical strategy for researchers to apply when considering experiments that involve the use of laboratory animals and in designing humane animal research studies.

8. Housing space or enclosures should account for animals’ social needs. Social animals should be housed in stable pairs or larger groups of compatible individuals. If there is a compelling reason to house animals singly, it should be for the shortest duration possible.