NASA Principles for the Ethical Care and Use of Animals

Introduction

A strong allegiance to the principles of bioethics is vital to any discussion of responsible research practices. As reflected in the considerations of the National Commission for the Protection of Human Subjects, "scientific research has produced substantial social benefits... [and] some troubling ethical questions" (The Belmont Report, 1979). The Belmont Report identified the key fundamental principles underlying the ethical evaluation of research involving human subjects. Similarly, the principles governing the ethical evaluation of the use of animals in research must be made equally explicit.

It is generally agreed that vertebrate animals warrant moral concern. The following principles are offered to guide careful and considered discussion of the ethical challenges that arise in the course of animal research, a process that must balance risks, burdens and benefits. NASA will abide by these principles as well as all applicable laws and policies that govern the ethical use of animals (see list at end). It is recognized that awareness of these principles will not prevent conflicts. Rather, these principles are meant to provide a framework within which challenges can be rationally addressed.

Basic Principles

The use of animals in research involves responsibility - not only for the stewardship of the animals but to the scientific community and society as well. Stewardship is a universal responsibility that goes beyond the immediate research needs to include acquisition, care and disposition of the animals, while responsibility to the scientific community and society requires an appropriate understanding of, and sensitivity to scientific needs and community attitudes toward the use of animals.

Among the basic principles generally accepted in our culture, three are particularly relevant to the ethics of research using animals: respect for life, societal benefit, and non-maleficence.

1. Respect for Life

Living creatures deserve respect. This principle requires that animals used in research should be of an appropriate species and health status, and should involve the minimum number required to obtain valid scientific results. It also recognizes that the use of different species may raise different ethical concerns. Selection of appropriate species should consider cognitive capacity and other morally relevant factors. Additionally, methods such as mathematical models, computer simulation, and in vitro systems should be considered and used whenever possible.

2. Societal Benefit

The advancement of biological knowledge and improvements in the protection of the health and well being of both humans and other animals provide strong justification for biomedical and behavioral research. This principle entails that where animals are used, the assessment of the overall ethical value of such use should include consideration of the full range of

potential societal goods, the populations affected, and the burdens that are expected to be borne by the subjects of the research.

3. Non-maleficence

Vertebrate animals are sentient. This principle entails that the minimization of distress, pain and suffering is a moral imperative. Unless the contrary is established, investigators should consider that procedures that cause pain or distress in humans may cause pain or distress in other sentient animals.

References:

1. Belmont Report, 1979
2. Animal Welfare Act (Public Law 89-544 as amended)
3. U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing , Research, and Training, Developed by IRAC and endorsed by the Public Health Service Policy on Humane Care and Use of Laboratory Animals, 1985
4. International Guiding Principles for Biomedical Research Involving Animals, Developed by the Council for International Organizations of Medical Sciences, Switzerland, 1985
5. Public Health Service Act (Public Law 99-158, 1985)
6. Guide for the Care and Use of Lab Animals, 1996

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