

**FACULTY OF HEALTH SCIENCES**  
**THE USE OF ANIMALS IN TEACHING AND RESEARCH**  
**STANDARD OPERATING PROCEDURES**

[Last updated June 2012]

*This document must be read in conjunction with the UCT RESEARCH POLICY and the UCT RESEARCH ETHICS CODE FOR USE OF ANIMALS IN RESEARCH AND TEACHING and the FHS AEC TERMS OF REFERENCE, the FHS AEC APPLICATIONS FOR ETHICS AUTHORISATION STANDARD OPERATING PROCEDURE, UCT POLICY AND STANDARD OPERATING PROCEDURES REGARDING EXPERIMENTAL USE OF NON-HUMAN PRIMATES AND FHS AEC REPORTING OF PROTOCOL DEVIATIONS UNANTICIPATED PROBLEMS AND WELFARE VIOLATIONS IN ANIMAL RESEARCH STANDARD OPERATING PROCEDURE*

**A PREAMBLE**

- (a) The University of Cape Town affirms that humans have an obligation to respect animals and to appreciate that they are sensitive to pain, respond to stress and may remember such experiences.
- (b) The University expects its members to make every effort to refine, reduce and replace animal experimentation.
- (c) The University affirms that the use of animals in experiments should be justified fully and that discomfort, stress and distress should be kept to a minimum or, ideally, avoided.
- (d) The University affirms that all aspects of SABS SANS 10386:2008 must be adhered to in its housing of animals and in its use of animals in experiments (as defined in B(d) below).
- (e) The optimal care of experimental animals is essential and in the interests of both animals and research. There are two main reasons for this proposition:
- First, proper care and use promote the welfare of animals and contributes to the attainment of the high ethical and humane standards expected of a civilised society.
  - Secondly, it is expensive to use animals in experiments. Experimental animals, which are housed in poor facilities or are suffering from disease produce poor, unreliable and unrepeatable results and are wasteful of resources.

## **B DEFINITIONS**

### **(a) Experimental animals**

The term "experimental animals" includes all non-human animals that contain a central nervous system (vertebrates and invertebrates), embryos and fetuses.

### **(b) Experimental vertebrate animal**

The term "experimental vertebrate animal" includes all non-human primates and other vertebrates, vertebrate embryos and fetuses.

### **(c) Experimental invertebrate animal**

The term "experimental invertebrate animal" includes all invertebrate animals and embryos (excluding bacteria, protozoa, porifers, coelenterates, platyhelminthes, pseudocoelomates and tunicates) that have a central nervous system.

### **(d) Animal experiment**

An "animal experiment" is any procedure which uses experimental animals for one or more of the following:

- (i) the advancement of knowledge
- (ii) to test a hypothesis
- (iii) to supply a product
- (iv) to provide organs or tissues or sera
- (v) to act as a host
- (vi) to impart or demonstrate existing knowledge
- (v) to teach or learn surgical or other techniques
- (vi) to make audio-visual recordings or any of the above
- (vii) to fulfil statutory requirements for testing, or collecting data on, any substance or product.

## **C USE AND CARE OF EXPERIMENTAL ANIMALS**

(a) Prior authorisation must be obtained from the Faculty Animal Ethics Committee before any animals are used for experimental purposes. All experimental animals must be identifiable and their records must be available for inspection. This all cages must be labelled and the record of welfare monitoring must be complete, including the relevant monitor's name. A copy of the final authorised protocol and any amendments must be filed in the designated place for inspection.

(b) The principal object of use of animals must be to obtain useful results and scientific information of high quality for the benefit of humankind.

(c) The experimentation must not be purposeless or unnecessary. Experiments accompanied by pain will be allowed only if they are shown to be for the purpose of producing results that could benefit humans, and where the benefits are clearly commensurate with the amount of pain caused. In such cases, analgesics must be used to alleviate pain and distress. In special circumstances, the requirement for analgesics may be relaxed.

(d) The use of animals must be thoroughly and scientifically planned and based on knowledge of the problem under study and so designed that the expected results justify the execution of the experiment.

(e) The husbandry and care of animals must comply with the most recent, internationally recognised minimum standards and recommendations. Special attention shall be given to aspects such as regular feeding, adequate and clean water, good environmental hygiene, environmental enrichment, adequate ventilation and elimination of excessive heat, cold and noise from the environment of the animal. Precautionary measures shall be taken to prevent diseases, injuries, overcrowding and stress factors and to protect the animals from endo- and ectoparasites.

(f) Social and behavioural requirements must be considered. Social animals should always be housed in groups where possible and the specific needs for their psychological well-being should be considered.

(g) Animals collected in the field for further study as preserved specimens should be appropriately killed and preserved as soon after collection as possible to avoid unnecessary stress.

(h) Animals shall be kept for no longer than the minimum period necessary, and must be disposed of immediately and appropriately after cessation of experimental work.

(i) The researcher must be prepared to terminate an experiment if it becomes clear that continuation will cause unnecessary pain and suffering. If the procedure causes serious injury, the animal must be killed before recovery from anaesthesia.

(j) If it is clear that the animal will suffer pain after the experimental procedure, the humane endpoint must be determined before the experiment and the animal must be killed in a humane manner, according to accepted veterinary principles to ensure immediate death.

(k) No experimental animal may be disposed of before certainty exists that death has occurred.

(l) No animal may be subjected to more than one significant pain-causing procedure. Variations must be authorised by the FHS AEC at a formal meeting.

(m) Housing: cages and other housing and the premises must comply with the SABS SANS 10386:2008 standards for the specific species where these exist.

(n) Transportation:

(i) Experimental animals shall be transported in accordance with recognised standards and regulations.

(ii) On arrival at an airport, seaport, railway station or other destination, the experimental animals shall immediately be unloaded and transported to suitable permanent housing.

(iii) Appropriate veterinary care shall be given to experimental animals found to be in a diseased, injured or other poor state during travel or on arrival.