



Animal Care Matters

An IACUC and ARF Newsletter

From the IACUC Administrator

Elizabeth Thames

The last Animal Care newsletter featured information about the diet used here at USC. Thanks to one of our investigators doing some further research on diets, we would like to pass on the following information about the rodent chow. Animal Resources uses Harlan Teklad Rodent Diet (8604). Soybean meal is the primary ingredient in 8604, and is the major source of isoflavones. With calculated values, 8604 should have 210-300 ppm of each genistein and daidzein. Because soybean meal can be variable, actual values can vary as well. If you are interested in reducing isoflavones, you may want to consider using a different diet like Teklad Global Rodent diets which have no or reduced soybean meal or a purified diet with refined ingredients such as corn starch and casein. You can find these types of diets at the following website, www.teklad.com

Important Information to Know ...

For safety reasons, there are certain rules that must be followed when working in an Animal Resource facility. These rules are handed down to Animal Resources by the State of South Carolina and regulatory agencies like OSHA. Failure to follow these rule may result in individuals losing their privilege to work in the Animal Resource facility. In addition, continued failure to follow the rules can and will result in the suspension of animal use. Make sure every member of your lab understands these rules. Please read the following carefully.

1. Lab coats and closed toed shoes must be worn when handling animals.
2. Do not throw sharp items (needles, razor blades, etc) into the regular trash can or dust pans. All sharp items should be placed in a red sharps container.
3. Do not eat, drink or apply cosmetics in the animal rooms. Each facility has a designated space where animal users may eat and drink.
4. Do not smoke (cigarettes or other inhaled items) in the animal facilities.



Summer
2005

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Words of the day

Moribund \MOR-uh-bund\, adjective:

1. In a dying state; dying at the point of death

Morbid \ Mor-bid\, adjective:

1. Pertaining to affected with, or inducing disease; diseased

-For more information on endpoints see page 3 of this newsletter

The IACUC is asking all investigators to write a cover letter when they submit a revised AUP. The cover letter should address all of the changes that were made to the AUP. It is the hope of the IACUC this process will help expedite the review of proposals. In addition, be sure to submit your AUP or amendment on the correct form. The IACUC will no longer accept AUPs or amendments written on old forms. The current version has VersionET2/2004 in the bottom right corner of the page. The IACUC will no longer accept Amendments simply written in a word document. All of the current forms are on the ARF web site (<http://uscm.med.sc.edu/ARF/index.htm>) under the "Forms" icon. If you have a problem with one of the forms, please contact Elizabeth.

The IACUC has issued guidance on the use of Endpoints in Animal Use Proposals (AUPs). The policy is included in this newsletter on page 3. This is the information the IACUC will refer to when reading your AUPs. If you have any ques-

tions about the information contained in the policy, please contact Dr Beattie or Elizabeth Thames for clarifications.

I would like to take the time to thank our departing community members- Mrs. Jan Ayers and Dr. Joe Hick. These two members have served tirelessly on the committee for several years and will be greatly missed. Thank you for all of your hard work.

Some numbers that might be of some use to you are:

- USC's PHS/NIH Assurance No. A3049-01
- Continued AAALAC accreditation since 1984
 - last accreditation- November 5, 2003
- USDA Registration No. 56-R-003



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Recognizing Signs of Morbidity and Moribundity

The following are signs and symptoms for judging morbidity (disease/illness) and moribund condition (state of dying) in animals:

Morbidity

1. Rapid breathing rate
2. Breathing rate very slow, shallow, and labored (preceded by rapid breathing)
3. Rapid weight loss
4. Ruffled fur (rough hair coat)
5. Hunched posture
6. Abnormal body temperature -less than 30°C (hypothermia) or Hyperthermia
7. Ulcerative dermatitis or infected tumors
8. Anorexia (loss of appetite)
9. Diarrhea or constipation

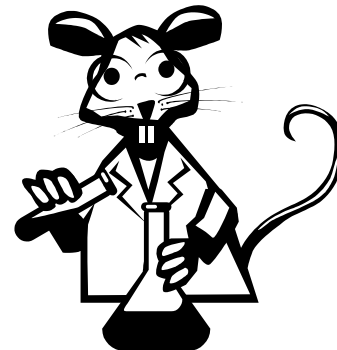
Moribund Condition

Signs and symptoms for morbidity plus:

1. Impaired ambulation (unable to reach food

or water easily)

2. Evidence of muscle atrophy or other signs of emaciation (body weight is not always appropriate)
3. Any obvious severe illness including such signs as lethargy (drowsiness, aversion to activity, lack of physical or mental alertness), anorexia (loss of appetite, especially when prolonged), bleeding, difficulty breathing, CNS disturbance, or chronic diarrhea
4. Inability to remain upright
5. Loss of consciousness
6. Drop in body temperature below 28°C for a prolonged period (6 hours).



IACUC Policy on Endpoints in Animal Use Proposals

Experimental studies may involve procedures that cause clinical symptoms or morbidity in animals. Ideally, studies should be terminated when the animals begin to exhibit clinical signs of disease (morbidity) if these endpoints are compatible with meeting the research objectives. Such endpoints minimize pain or distress and are preferable to death or moribundity as endpoints which can involve considerably more pain or distress.

Although infrequent, allowing animals to become moribund or die as endpoints may be necessary for some research projects. The moribund condition is defined as a clinically irreversible condition leading inevitably to death. In these studies, animals are permitted to die or become moribund as a result of experimental procedures, in some cases without the use of pain relieving measures, because such measures may compromise the integrity of the study.

It is the policy of the Institutional Animal Care and Use Committee (IACUC) that studies requiring moribundity or death as the endpoint will not be approved without specific written scientific justification. Animals that become moribund will be humanely killed by approved methods.

In those cases where death is the only acceptable endpoint, the investigator must provide an explicit explanation for this endpoint. Particular attention should be paid to providing the rationale for not humanely killing moribund animals, e.g., what additional scientific information will be gained.

Animal Study Proposals utilizing death or moribund condition as an endpoint should contain the following information:

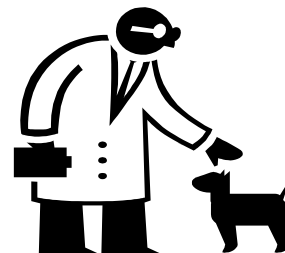
1. The scientific rationale for death or moribund condition as an endpoint, including:

- A. What alternatives were considered, why morbidity as an endpoint cannot be used, and how alternatives will be used whenever possible.
- B. Why pain relieving measures cannot be utilized.
- C. Number of animals to be used and assurance that this is the minimal number of animals required.

D. Whether animals will be euthanized when moribund and if not, what information is to be gained in the interval between moribundity and death.

2. A plan for the following animal care and monitoring procedures:

- A. Animals involved in experiments that may lead to a moribund condition or death will be monitored daily by personnel experienced in recognizing signs of morbidity (illness, injury, or abnormal behavior) for at least the following: abnormal posture, rough hair coat, head tucked into abdomen, exudate around eyes and/ or nose, skin lesions, or abnormal breathing, difficulty with ambulation, decreased food or water intake, or self mutilation.
- B. The frequency of observation will be increased (including on weekends and holidays) when animals exhibit the above or other signs of moribundity. Designated personnel, including a veterinarian, should be notified as soon as animals show signs of disease. An assessment of the animals' condition should be made as soon as possible and a plan of action established.
- C. Consideration will be given to moving animals to individual cages when their condition deteriorates to the point that injury from other animals is likely. Dead animals must be promptly removed.
- D. Written records will be kept of monitoring.





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Animal Resource Facilities
School of Medicine
Graduate Science Research
Center, Room 102
Columbia, South Carolina 29208

Phone: 803-777-8106
Fax: 803-777-2849
E-mail: elthames@gwm.sc.edu

We're on the Web !!
<http://uscm.med.sc.edu/ARF/index.htm>

Animal Care Matters is published four times a year by the Institutional Animal Care and Use Committee (IACUC) and Animal Resource Facilities (ARF) of the University of South Carolina (USC).

The IACUC is an institutional body appointed by the USC President to oversee the program for the humane care and use of all vertebrate animals used for research, teaching, and training. Any investigator who intends to use laboratory animals must submit an Animal Use Proposal (AUP) to the IACUC for its review and approval.

The ARF provides care and maintenance of all animals used by investigators. Preventive care is provided through vendor animal health evaluations, quarantine programs, and sentinel animal diagnostics. Special care and services can be provided upon request.

Comments and submissions for **Animal Care Matters** are welcome and should be directed to Elizabeth Thames, IACUC Administrator, at 777-8106 or elthames@gwm.sc.edu.

IACUC Meetings 2005

Meeting Date	AUP Deadline
Jan 6	Dec 20
Feb 3	Jan 24
Mar 3	Feb 21
Apr 7	Mar 28
May 5	Apr 25
Jun 2	May 23
Jul 7	Jun 27
Aug 4	Jul 25
Sep 1	Aug 22
Oct 6	Sep 26
Nov 3	Oct 24
Dec 2	Nov 21

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