An IACUC and ARF Newsletter

Animal Care Matters

SPRING 2002

INSIDE THIS ISSUE:

New Per Diem Rates

The University's Institutional Animal Care and Use Committee (IACUC) has approved the animal per diem rates for FY 2002-2003. These rates will become effective July 1, 2002.

The IACUC has also directed that Animal Resource Facilities (ARF) adjust per diem and other reimbursable rates annually to reflect changes in the costs for procuring and maintaining animals for teaching and research. Annual adjustments will allow animal investigators to plan their animal use over the life of a project. Currently, costs for animal care such as feed, bedding, and caging have been increasing at an annual rate of 3 to 5%. Investigators submitting grant applications should consider providing for increases in animal costs when considering multiyear budgets. A table with the new rates can be found in this newsletter as an insert and may also be viewed at the ARF website (http://uscm.med.sc.edu/ARF/index.htm).

For questions on these new rates, please contact Dr. Robert Beattie at 777-8106 or

Protocol Review

Change in Investigator

All requests for change in the Principal Investigator (PI) of an IACUC-approved protocol should include an original signed Assurance Statement from the new PI. By doing so, the new PI assures the IACUC that all work in the protocol involving laboratory animals will be conducted in accordance with the Guide for the Care and Use of Laboratory Animals (the *Guide*), the Animal Welfare Act (PL 89-544 and amendments), and the University Policies.

NIH/AUP Review

For new Animal Use Proposal (AUP) submissions where NIH is the project's funding source, the PI is required to submit one copy of the entire grant, including the SPAR Proposal/Award Processing Form Page and the NIH Face Page (Form Page 1). A signature on the second space in the Assurance Statement is also needed as a certification that all animal procedures described in the grant application are included and accurately described in the AUP.

2002 IACUC Meetings

Date	AUP Deadline
Apr 4	Mar 25
May 2	Apr 22
Jun 6	May 27
Jul 11	Jun 24
Aug 1	Jul 22
Sep 5	Aug 26
Oct 3	Sep 23
Nov 7	Oct 28

From the IACUC Chair

If you still haven't heard, or if you've heard it through other means, yes, it's true, the costs of keeping laboratory animals at USC will increase starting the first of July. The IACUC made this recommendation last January after careful review of the costs of maintaining animals at ARF. Please bear these new rates in mind when you figure the budget allocation in your next grant application.

The IACUC has also adopted guidelines on the quarantine and stabilization of all laboratory animals received and maintained by ARF. We want to make sure that we use healthy, stable animals that won't compromise our research results.

There will be a couple of changes in the review of protocols. First, if a request for a change in PI is to be made, an Assurance Statement that is signed by the new PI should be submitted to the IACUC. Second, if NIH is the funding source for an animal proposal, a complete copy of the grant application should be submitted with the AUP.

These changes are necessary. These are measures we have to take to further ensure that USC continues to achieve the highest standards for laboratory animal care and use. The IACUC expects everyone's full cooperation and support of these changes. Please call me for any question or concern that you may have.

Dr. Donald O. Allen, Chair

The Common Laboratory Mouse

No other mammal has been used in such numbers or in so many biomedical experiments as the common laboratory mouse. But how much do we really know about these "most favored" specimen? The following biological and physiological data about the lab mouse, *Mus musculus*, may prove helpful especially to investigators and researchers when designing their next experiments. Note that the figures presented here are average.

Adult body weight	30 gms
Birth weight	0.5–1.5 gms
Rectal temperature	99.3°F
Diploid number	40
Life span	1–2 years
Gestation period	20 days
Daily Feed	4–6 gms
Daily water	6 mls
GI transit time	8–14 hrs
Heart rate	330–780/min
Respiratory rate	84–230/min
Blood volume	76–80 ml/kg
Blood pressure: male	113–147 mm Hg
female	81–106 mm Hg
Cycle length	4–5 days*
Breeding life	6–9 mos
Breeding age	4–6 wks
Litter size	5–10 pups
Weaning age	21 days
Hematocrit	39–49 %
Hemoglobin	10.2–16.6 mg/dl

*postpartum estrus – receptive and fertile within hours after delivery

Rodent Surgery

General requirements for rodent surgery are outlined in the Guide for Care and Use of Laboratory Animals (the *Guide*). The Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC) endorses the *Guide* standards for rodent surgery by requiring their accredited institutions to have adequate procedures in place for conducting rodent surgery. Federal Regulations and Policies regarding care and use of laboratory animals stress the importance of minimizing pain and distress in all animal subjects, particularly those that will undergo survival surgical procedures. Animal users have the responsibility to provide rodents with adequate intra- and post-operative care.

All surgical procedures should be described in the Annex C of the AUP and approved by the IACUC. The protocol should also describe intra- and postoperative care, aseptic techniques, use of anesthetics, analgesics, tranquilizers, and/or other treatments. A list of all personnel who will perform the surgical procedures, monitoring, and care should also be included.

Quarantine and Stabilization of Animals

The IACUC has established the following guidelines for the quarantine and stabilization of all animals received and maintained by the Animal Resource Facilities (ARF).

An effective quarantine minimizes the chance for introduction of pathogens into an established colony. Information from the source on animal quality should be sufficient to enable the Attending Veterinarian to determine the length of quarantine, to define the potential risks to personnel and animals within the colony, and, to determine whether therapy is required before animals are released from quarantine. Rodents might not require quarantine if data from the source are sufficiently current and complete, and if the potential for exposure to pathogens during transit is considered.

However, all newly received animals at USC should be given a period for physiologic, psychologic, and nutritional stabilization before their use. Such a period allows the animal to recover from shipping stress, adapt to its new surroundings, and become physiologically stable. Adequate acclimation times may vary depending on the animal species, source, type and duration of transportation, and the intended use for the animals.

⇒ For rodents, the recommended adaptation is 72 hours (3 days), minimum, prior to use in non-acute procedures.

⇒ For all large animals (including rabbit) undergoing non-acute procedures, the recommended adaptation is 5 days, minimum.

All newly arrived animals that shall be used in teaching, research, or testing at USC should be provided the minimum acclimation periods described in these guidelines. Failure to allow animals to acclimatize could adversely affect animal health and research data.

Campus Mail

UNIVERSITY OF SOUTH CAROLINA

ANIMAL CARE MATTERS

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We're on the Web !!
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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 Benilda P. Pooser, Ph.D., IACUC Administrator, at 777-8106 or pooser@gwm.sc.edu.

IACUC MEMBERSHIP

Animal Per Diem Rates 2002-2003

Effective July 1, 2002

ANIMAL TYPE/ SPECIES	PER DIEM	DISPOSAL	NOTES
Rodents			
Mouse			Per diem is per cage. Whenever possible, mice are housed as compatible groups of up to 5 adult mice per standard cage.
Conventional	.39	.05	Includes microisolator top
Special care	1.22	.05	Sterile cage, feed, water (SCID, Nude)
Peromyscus	.35	.05	Per cage
Rat			
Conventional	.56	.26	
Special care	.84	.26	Sterile cage, feed, water, frequent change, etc.
Female & litter	.56	.79	
Gerbil	.39	.05	
Guinea pig	.60	.45	
Hamster	.39	.05	
Rabbit	1.46	2.43	
Other Mammals			
Pig	6.89	24.25	
Sheep/Goat	6.07	24.25	Indoors housing
Cat	2.43	2.43	
Dog	4.08	24.25	
Non-mammals			
Frog (Rana sp.)	.56	.05	
Turtle	.56	1.22	
Xenopus	7.88	.05	Room per diem
Miscellaneous			
Pig transport	115.76		Transport from Clemson farm unit to ARF
Pig conditioning	42.50		