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AN IACUC AND ARF NEWSLETTER

# Animal Care



## New Animal Use Proposal Forms

The USC Institutional Animal Care and Use Committee (IACUC) has approved a revised version of the Animal Use Proposal (AUP) Form. All investigators should start to use this revised version effective immediately when submitting any new animal use proposal or three-year renewal for IACUC consideration. No proposals will be accepted for the January 2003 review unless it is prepared on the new version.

If animal use involves breeding alone, a Breeding Form should be submitted. This new form should be used only for the establishment and maintenance of a breeding colony. A separate AUP should

be completed to cover any other animal use, including the generation of a transgenic or knockout line. There are helpful tips and information in the *Instructions for Submitting the AUP*, so be sure to read these before attempting to fill up the form.

The new forms and instructions may be downloaded from the Animal Resource Facilities (ARF) website (<http://uscm.med.sc.edu/ARF/index.htm>), or a copy on a disk may be obtained from the IACUC. If you have any question with these new forms, you may call or e-mail the IACUC Administrator at 777-8106 or [pooser@gwm.sc.edu](mailto:pooser@gwm.sc.edu).

## NIH's New IACUC Policy: "Just-in-Time" Review

The NIH is changing the Public Health Service Policy on Humane Care and Use of Laboratory Animals (PHS Policy) to permit institutions with PHS Animal Welfare Assurances to submit verification of IACUC approval for competing applications subsequent to peer review but prior to award. This Policy (often referred to as "just-in-time") took effect September 1, 2002. The change, however, permits funding components to require verification of IACUC approval at an earlier date if necessary.

Consequently, NIH emphasizes that: (1) This change only affects the timing of the submission of IACUC approval. Institutional officials retain the discretion to require IACUC approval prior to peer review in certain circumstances

(2) Under no circumstances may an IACUC be pressured to approve a protocol or be overruled on its decision to withhold approval. In no way is peer review intended to supersede or serve as a replacement for IACUC approval; (3) Should an institution find that one of its investigators disregards his/her responsibilities, the institution may, for example, determine that all animal protocols from that investigator be subject to IACUC approval before it will permit submission of an application from that investigator; and, (4) The NIH understands its responsibility to ensure that institutions are given adequate notice to allow for timely review prior to award and will take appropriate internal measures to fulfill its responsibility to estab-

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### IMPORTANT !!!

- ◆ Use new version of AUP Form now
- ◆ For breeding studies, use new Breeding Form
- ◆ Read all **Instructions** for submitting new forms
- ◆ If NIH, submit one complete copy of the approved grant with your AUP or Breeding Form
- ◆ IACUC Members and Meeting Schedule on page 4

For several months now, the IACUC had been working hard on revising the animal use proposal (AUP) form that is currently being used by principal investigators (PIs) here at USC. The task wasn't easy - how could we make the form more user friendly but at the same time ensure that all the federal requirements and guidelines are met? We began by identifying the questions that most PIs fail to answer appropriately and completely. Hopefully, the revised form will eliminate these gray areas and make it easier for your proposals to get approved without contingencies during the first round of IACUC review. If breeding animals is the only activity that you need to describe on your proposal, you should use the new Breeding Form which was created for this sole purpose. I urge you to read the **Instructions** for submitting the forms, you'll be glad you did.

The NIH is now adopting the "just-in-time" review for all activities involving animals (see front page story). So what does this mean? This means that you may now have your NIH grant application peer reviewed without an IACUC approval. However, the AUP approval number will be needed before funds are released. So the IACUC requests all concerned investigators that to avoid any delay

of funds' release, it would be best to submit an AUP immediately after receiving notification that your grant is likely to be funded, as it may take some time (maybe over a month) to get approval for an AUP. You cannot wait until the last minute to seek approval. Also, a complete copy of the approved NIH grant proposal must accompany the AUP. As always, if you have any question, comment, or suggestion, give me or any IACUC member a call. We will continue to work with you.

Since many USC investigators use CO<sub>2</sub> for euthanasia, the new NIH guidance on its proper use in laboratory animals should be given very careful consideration.

An excerpt of a report from the AMP News Service of one of the speeches given at the Animal Rights 2002 National Convention held last July and included in this issue would be very enlightening to all of us who use animals for biomedical research.

Finally, I would like to take this opportunity to express my sincerest gratitude to three outgoing IACUC members: Dr. Alex McDonald, Dr. Ken Walsh, and, Mr. Nate Alderson. Dr. Charles Mactutus, who is a new faculty member from the Department of Psychology, will be joining as a new IACUC member.

## The Guinea Pig (*Cavia porcellus*)

The guinea pig or cavy is a docile caviomorph closely related to chinchillas and porcupines. The domestic guinea pig (*Cavia porcellus*), from which laboratory stocks and strains are derived, has long been identified as a laboratory animal, and indeed the name "guinea pig" often means *an experimental subject*. There are many practical reasons for the popularity of guinea pigs as laboratory animals and as pets. They are readily available, inexpensive to purchase and maintain, tractable, quiet, and have little odor. As laboratory animals, guinea pigs have been used extensively in studies of immunology, genetics, otology, infectious diseases, nutrition and gnotobiology. The following lists approximate values of life cycle and physiologic data of the guinea pig.

Adult body weight - male	900-1200 g
- female	700-900 g
Birth weight	70-100 g
Rectal temperature	37.2-39.5°C
Diploid number	64
Life span	4-5 years

Daily Food intake	6g/100 g bw
Daily water intake	10 ml/100 g bw
GI transit time	13-30 hrs
Heart rate	230-380/min
Respiratory rate	42-104 breaths/min
Blood volume	69-75 ml/kg bw
Blood pressure	80-94/55-58 mm Hg
Breeding onset: male	600-700 g (3-4 mo)
Breeding onset: female	350-450 g (2-3 mo)
Cycle length	15-17 days
Gestation period	59-72 days
Litter size	2-5
Weaning age	14-21 days (150-200 g)
Hematocrit	43 ± 12 %
Hemoglobin	13.4 gm/dl ± 12%

### Sources:

Harkness JE and JE Wagner. 1995. The Biology and Medicine of Rabbits and Rodents. Williams and Wilkins, Media, PA.

Manning PJ *et al.* 1984. Biology and diseases of guinea pigs. In Laboratory Animal Medicine (Fox JG *et al.*, eds.). Academic Press, Inc., Orlando, FL.

## OLAW Releases New Guidance on Use of Carbon Dioxide

The Office for Laboratory Animal Welfare (OLAW) has recently provided clarification of the PHS Policy regarding the use of carbon dioxide (CO<sub>2</sub>) for euthanasia of laboratory animals. Carbon dioxide is the most commonly used agent for euthanatizing rats and mice. However, care must be taken when using CO<sub>2</sub>, and failures to euthanize animals are not rare.

Although CO<sub>2</sub> is generally considered an acceptable euthanasia agent for small laboratory animals, its acceptability is based on several factors, including:

- High concentrations of CO<sub>2</sub> may be distressful to rodents. Accordingly, pre-filling the chamber with gas is not recommended. Animals should be placed in the chamber in their cages and the CO<sub>2</sub> gas introduced slowly. Cages must not be overcrowded. It is important to consider that mixing unfamiliar or incompatible animals in the same container may be distressful to the animals. Compressed CO<sub>2</sub> in cylinders is the only AVMA Panel-recommended source of CO<sub>2</sub> for euthanasia.
- Death must be verified after euthanasia and prior to disposal. Rats and mice should be left in the chamber for at least 5 minutes after visible respiration has stopped. Rats seem to be particularly resistant, and breathing may resume after respiration has apparently ceased. Unintended recovery must be obviated by the use of appropriate CO<sub>2</sub> concentrations and exposure times. OLAW notes that thoracotomy after apparent

death is one way to assure irreversibility of the procedure.

- Investigators must assure that all personnel responsible for administering euthanasia are appropriately qualified and monitored, and that they adhere to IACUC-approved protocols and institutional policies.

A recent notice from OLAW states, "Unintended recovery of animals after apparent death from CO<sub>2</sub> (e.g., in necropsy coolers) is a documented occurrence. Institutions are reminded that such incidents constitute serious noncompliance with the PHS Policy and serious deviation from the provisions of the Guide for the Care and Use of Laboratory Animals. As such, the IACUC, through the Institutional Official, must promptly provide OLAW with a full explanation of the circumstances and actions taken."

Investigators should review procedures with their laboratory personnel to assure that they are fully trained on procedures for euthanasia and the use of CO<sub>2</sub> for euthanatizing rodents. Questions about the proper method of euthanasia, and availability and use of CO<sub>2</sub> may be directed to the Attending Veterinarian c/o Animal Resource Facilities (777-8106 or rb@gwm.sc.edu).



## Nuts and Bolts of Research Infiltrations

Representatives of both People for the Ethical Treatment of Animals (PETA) and In Defense of Animals (IDA) said that a major component of their anti-research campaigns will remain the infiltration of research facilities. Matt Rossell, who has worked with both PETA and IDA and was a key figure in infiltrations at Boys Town National Research Hospital and the Oregon National Primate Research Center, urged (animal) activists to follow in his footsteps. Some of his suggestions for successful infiltrations are listed here because they may suggest potential vulnerabilities:

*"We cannot underestimate the stupidity of our enemy."*

— Matt Rossell

In Defense of Animals

- » Get a job as a laboratory animal caretaker - and don't worry about your record as an activist. "We cannot underestimate the stupidity of our enemy" in conducting background investigations. He said that few want the low-paying jobs and most facilities are continually recruiting. Relax during the

interview, he said, and don't panic. Practice answering the interview questions about your animal rights beliefs (they are seldom asked, he notes). Study your co-workers and make yourself fit in by the way you look, dress and talk.

- » Figure out when you can have access to the animals to videotape or photograph conditions. Calculate your risks, assuming that each picture may be the last one you get the chance to take.
- » Listen, observe, document. Rossell claims that people gossip about the experiments. Use a mini-tape recorder to document your day.
- » "Places get lax," said Rossell. "Once you are an employee, you're just part of the machinery."

Rossell added that IDA was hiring activists and urged interested individuals to talk with him.

Source: Americans for Medical Progress (AMP) News Service Special Report, July 7, 2002

## ANIMAL CARE MATTERS

An IACUC and ARF Newsletter

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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 Meetings 2002-2003

Meeting Date	AUP Deadline
Nov 7	Oct 28
Dec 5	Nov 25
Jan 9	Dec 16
Feb 6	Jan 27
Mar 6	Feb 24
Apr 3	Mar 24
May 1	Apr 21
Jun 5	May 26
Jul 3	Jun 23
Aug 7	Jul 28
Sep 4	Aug 25
Oct 2	Sep 22

### IACUC MEMBERSHIP

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