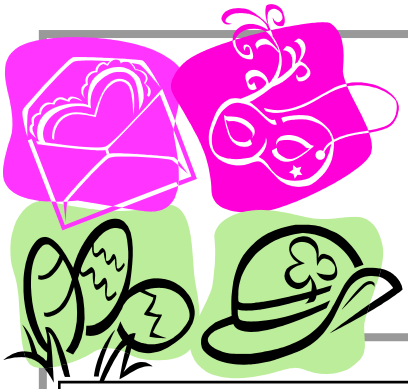


Animal Care Matters

An IACUC and ARF Newsletter

Winter 2005

From the IACUC Administrator

Elizabeth Thames

The University of South Carolina, in accordance with Public Health Service (PHS) policy, has on file with the National Institute of Health (NIH) a Letter of Assurance. The Office of Laboratory Animal Welfare (OLAW) is the division of the NIH in charge of animal welfare issues including approving a Letter of Assurance. USC's Letter of Assurance states "Prior to the first and second anniversaries of approval the IACUC requires the investigator to submit an " Annual Update of Proposal" for IACUC review. If the investigator fails to provide the Annual Update or the IACUC requires additional information to complete the review, further animal use may be deferred until the review is completed by the IACUC." In addition, the United States Department of Agriculture (USDA) requires (Animal Welfare Act, Part 2, subpart C, section 2.31) an annual review of a proposal.

It is very important that you return your Annual Update forms to the IACUC in a timely manner. Animal Resources sends the form to you 3 months in advance. If there is no response from you after one month, Animal Resources sends a second notice. All Annual Updates must be approved by the IACUC committee at a regular full committee meeting (see back page for meeting dates). If you do not submit your Annual Update by the anniversary of your Animal Use Proposal (AUP) expiration date, your animal use for that AUP will be deferred until the IACUC approves your Annual Update. This deferment is to maintain compliance with OLAW and USDA regulations. If you are having trouble filling out the Annual Update forms, please contact the Office of Animal Resources for help (777-8106).

Change in Nomenclature

Charles River Laboratories (CRL) has notified ARF that the nomenclature of animal models they produce will change. This change took effect January 1, 2005. CRL is making these changes to ensure that they are compatible with the most current nomenclature guidelines. The changes conform to the guidelines set forth by the International Committee on Standardized Genetic Nomenclature for Mice (ICSGN). It is the revised nomenclature that should be used in all scientific publications and presentations. No other factor (genetic makeup, colony management, genotype and phenotype) has changed. The list posted on CRL's website and in their 2005 Product Catalog includes the previous nomenclature, the new nomenclature and the geographic location of the particular animal model. CRL's technical assistance line is 1-800-338-9860.

INSIDE THIS ISSUE:

Some numbers that will be of use to you are:

- USC's PHS/NIH Assurance No. A3049-01
- We have had continued accreditation since 1984
- We were last accredited November 5, 2003
- USDA Registration No. 56-R-003

From the IACUC Chair

Ken Walsh, Ph.D.

As part of the IACUC's continuing education, an article published this year in *Lab Animal* (Sept. 2004, vol. 33, No. 8, pg 15) was discussed at the January meeting. The article deals with the issue of Cervical Dislocation. More specifically, the question of concern was: When is euthanasia by cervical dislocation without anesthesia justified? After some deliberations the IACUC came up with the following guidelines:

1. A sound scientific justification must be given for not using anesthesia prior to cervical dislocation. This justification should be based on science and not past experience.
2. The justification must be supported by scientific research. A quick search of the literature should produce the support you need.

If you have any questions about cervical dislocations or how to perform cervical dislocation with and without anesthesia, please do not hesitate to contact the IACUC, Dr. Beattie, Elizabeth, or myself. The IACUC is committed to working with USC investigators to insure research goals are met.

...continued from page 3

Solution	Required Contact Time	Comments
10% povidone iodine solution	24 hours	
2% aqueous Glutaraldehyde (Cidex)	10 hours	toxic
2% Glutaraldehyde plus 7.05% phenol (Sporicidin)	10 hours	rinse in sterile water or sterile saline before use corrosive for metal instruments
Chlorine dioxide (Clidox-S)	6 hours	A 1:5:1 solution (1 part Clidox activator : 5 parts water : 1 part Clidox base) the newly mixed solution must be allowed to sit for 15 minutes prior to use once mixed, the solution is effective for 14 days after which time a new solution must be made highly corrosive for metal instruments. rinse in sterile water or sterile saline before use

Chemical Sterilization

In considering the methods for sterilization it is important to differentiate between sterilization and disinfection. Sterilization kills **all** viable microorganisms, while disinfection only reduces the number of viable microorganisms. High level disinfection will kill most vegetative microorganisms but will not kill the more resistant bacterial spores. Commonly used disinfectants such as alcohol, iodophors, and quaternary ammonium compounds are not sterilants and, therefore, are not acceptable for the use on items which require sterilization.

Effective and proper use of chemical sterilization is dependent on many factors including:

1. The use of chemicals classified as "sterilants". Those classified only as "disinfectants" are not adequate.

2. The physical properties of the item being sterilized. It must be relatively smooth, impervious to moisture, and be of a shape that permits all surfaces to be exposed to the sterilant.

3. Exposure. All surfaces, both interior and exterior, must be exposed to the sterilant. Tubing must be completely filled, and the materials to be sterilized must be clean and arranged in the sterilant to assure total immersion.

4. Time. The items being sterilized must be exposed to the sterilant for the prescribed period of time.

5. Use of fresh solutions. The sterilant solution must be clean and fresh. Most sterilants come in solutions consisting of two parts that when added together form what is referred to as an activated solution. The shelf life of activated solutions is indicated in the instructions for the commercial product. Generally this is from one to four weeks.

6. Rinsing chemically sterilized items. Instruments, implants and tubing should be rinsed both inside and out with sterile saline or sterile water prior to use to avoid tissue damage.

The Centers for Disease Control (CDC) has classified the following chemicals as sterilants. These are the active chemical ingredients of some of the commercial sterilants. Discretion is required in using these agents to assure that they are used with appropriate safety precautions and that they are compatible with the items being sterilized.

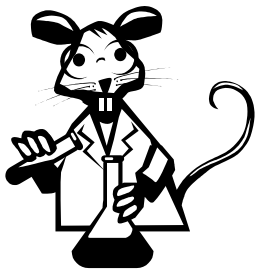
a. Glutaraldehyde 2% for a minimum of 10 hours.

b. Formaldehyde (8%)- Alcohol (70%) solution for a minimum of 18 hours.

c. Stabilized hydrogen peroxide (6%) for a minimum of 6 hours.

There are many acceptable commercial sterilants available, and there use is encourage over making up solutions form basic ingredients. Only products classified as sterilants are to be used for sterilizing instruments and implants for surgery and they must be used according to the manufacturer's recommendations for sterilization. The chart on page 2, list commercially available solutions.

Animal Resources recommends autoclaving instruments for surgical procedures first. For multiple procedures, we recommend Hot Bead sterilizers. Hot Bead sterilizers allow you to easily heat sterilize instruments between animals. There will always be some instrument that can not be autoclaved and for those instruments we recommend the commercially available chemical sterilants. If you have any questions about which sterilization procedure to use, call the Animal Resources office at 777-8106.



UNIVERSITY OF SOUTH CAROLINA

Campus Mail

ANIMAL CARE MATTERS

An IACUC and ARF Newsletter

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

IACUC MEMBERSHIP

CHAIRMAN
Ken Walsh, Ph.D.

MEMBERS
Robert Beattie, D.V.M.
Mark Davis, Ph.D.
Charles Mactutus, Ph.D.
Marj Peña, Ph.D.
Margaret Rentz
Tyrone Washington
Britt Wilson, Ph. D.
Marlene Wilson, Ph.D.
Bao Ting Zhu, Ph.D.

COMMUNITY MEMBERS
Janice Ayers
Joe Hick, M.D.

CONSULTANTS
Tommy Coggins
Charles Jeffcoat