

Dr. August Battles
Attending Veterinarian/
Director of Animal Care Services
Dr. Marcel Perret-Gentil
Assistant Director of Veterinary
Programs
Editor



UNIVERSITY OF
FLORIDA

ANIMAL CARE SERVICES NEWSLETTER

Animal Care Services
Health Science Center
Communicore CB-159
P.O. Box 100006
Gainesville, FL 32610
Telephone: 352-392-2977
Fax: 352-392-3766

Volume 3, Issue 2

April 2003

New Policies

NOTE: ACS policies are located on the web at <http://www.health.ufl.edu/acs>

Policy on Duplication of Cage Cards

It has been brought to our attention that cage cards are occasionally being copied by Investigators or their staff and placed on the cages. Animal Care Services cage cards have a unique bar code that identifies each individual cage. Cages are added to the Investigator's census when cage cards are generated using our management software program. ACS scans the bar codes periodically during the month to reconcile the census with what is in the management database, and to track movement of animals. **Duplication of ACS cage cards is therefore strictly forbidden.** When this occurs, the cages are not on the census. Only cage cards generated by the ACS office can be used for animals housed in the ACS facilities. Please refer to the policies on cage cards located on the ACS web site (<http://www.health.ufl.edu/acs/index.htm>). We now are able to identify cage card errors, including duplications. Animals without ACS-generated cage cards will be considered not to have appropriate identification and will be handled according to the unidentified cage card policy. ACS will recover from the Investigator all costs associated with correcting the cage card duplication.

Effective date of this policy – May 1, 2003.

Renovations Improvements and Security Changes

The new palm reader security system for the Communicore animal facilities is being installed and should become operational shortly. We plan on expanding the area of coverage as funds become available. The large freight elevator will have key access to allow use for those who need it.

Investigators will need to fill out an application (for the PI and staff) for facility access, and to come down to ACS to have their palms identified by the reader and enter a PIN number (same as UF ID number). Investigators will need to indicate on the form who in their staff will need access and indicate special needs (e.g. after duty hours access). Facility access will be granted only if you...

- have a current/valid UF ID card.
- are listed in a current IACUC-approved protocol.
- are enrolled in the Animal Contact Program (see <http://www.ehs.ufl.edu/Bio/Animal/acweb.htm>).
- have attended the Animal Awareness Seminar (see <http://www.health.ufl.edu/acs/index.htm>).

Animal Care Services (ACS) and the office of the Attending Veterinarian publishes, every other month, a newsletter to communicate with those who use or provide support to the animal care program at the University of Florida. This newsletter contains new policies, new services provided, updates on animal facility improvements, updates on federal regulations, policies and other items of importance to animal users. We use e-mail as our primary method of distributing the newsletter and also have copies of the newsletter available in the animal facilities. Please print this newsletter and distribute it to members of your department. If you did not receive this newsletter by email, and would like to be added to the email list, please send an email message to tmkegley@vpha.health.ufl.edu with "add to ACS newsletter" under subject. This and all past issues of the newsletter can be accessed at <http://www.health.ufl.edu/acs/subnewsanns.htm>.

- have successfully passed the appropriate ACS auto-tutorials (see <http://www.health.ufl.edu/acs/training/onlinetut.htm>). Required auto-tutorials are (depending on the area you require access):
 - Infectious Isolation Unit.
 - Specific Pathogen Free Rodent.
 - Large Animal/Conventional Rodent.
- have undergone a facility practicum/tour with the area supervisor (call 392-2977 to schedule a tour). This tour can only be taken after successfully passing the appropriate ACS auto-tutorials.

Exceptions must be approved by the Director of ACS.

ACS will notify all investigators regarding the lock down via e-mail on May 1st, and the facility will be locked down May 15th.

New ACS Services

Imaging Services – X-Rays, Fluoroscopy and Ultrasound

ACS is now offering X-ray, fluoroscopy, and ultrasound services for research imaging of animals and *in-vitro* studies.

Our expertise covers image-guided procedures such as angiography, venography, selective catheter placement, percutaneous procedures including biopsy and vascular access. Some of our previous studies have also included, but not limited to aortic and biliary stent placement, indwelling catheter experiments, contrast agent testing, organ injections, and workshops for catheter, stent and instrument training. These studies have been carried out in species as small as the mouse and as large as swine. We can also perform plain film imaging (x-rays) in all species and studies such as bone tumor models.

This new service represents a joint effort of the University of Florida (UF) Department of Radiology, College of Medicine and Animal Care Services, and is available for use by all UF and VA faculty. Other institutions are also invited and encouraged to make use of this facility. CRJ Mladinich, DVM, MS (with 36 years experience in practice and research) and Marcel Perret-Gentil, DVM, MS (trained and experienced in surgical research) will supervise this portion of the surgical suite. ACS will provide anesthesia and veterinary care as needed.

If you are interested in this new service, please contact any of the following individuals:

- Dr. CRJ Mladinich – 376-1611 x-6582; mladic@radiology.ufl.edu
- Dr. Marcel Perret-Gentil – 392-0672; mperret@ufl.edu
- Luis Zorrilla – 392-9948; zorro21@vpha.health.ufl.edu

Rodent Identification

ACS will be providing animal identification such as ear tagging, tattooing and microchipping. Stay tuned! Ear tagging is provided as part of the SPF service at no additional charge; however, investigators should provide the tags. You may purchase ear tags from The National Band and Tag Co. (<http://www.nationalband.com>).

Analgesia, Stress and Euthanasia Updates

Postoperative Analgesia in the Laboratory Mouse

Recently, A. Karas reviewed the literature on the use of postoperative analgesia in the laboratory mouse (2002, *Lab Animal*, 31(7):49-52) According to Karas, it is clear from the literature that rodents do perceive pain, but it is not yet possible to determine the extent to which postoperative pain affects mice. Means of assessment and alleviation of postoperative pain in rodents include the study of behavior after surgery and the use of pain threshold-resting devices to determine changes in pain sensitivity. Karas notes that “several studies have demonstrated that mice show profound alterations in overall activity level, food and water intake, body weight, and sleep patterns following surgical injury or establishment of disease.” While there is a need for effective analgesic therapies in mice to be developed, “current knowledge suggests that we should use preemptive analgesia, increase the frequency of dosing, and

lengthen the duration of treatment to cover the period when behavioral alterations are present.” Karas concludes that if effective strategies are used, animal well being and validity of the models can “theoretically be improved.”

— Taken from AAALAC's *Keeping Connected* March 6, 2003 —

Physiological and Behavioral Responses to Stress: What Does a Rat Find Stressful?

Harkin et al. (2002, *Lab Animal* 21(4):42-50) examined physiologic and behavioral responses to environmental stressor in laboratory rats with the use of biotelemetry, which allowed data recording without animal restraint or human contact. Heart rate, temperature, and activity levels were monitored. The stressors included: paired housing with a stranger; soiled (wet) bedding; subcutaneous injection; handling; air-puff startle (short puffs); strobe light; novel odor; and confinement in a smaller cage. Each rat was exposed to each condition individually. The authors ranked the extent of response to stressors as follows: “paired housing > soiled bedding > injection > handling = air puff > stroboscopic lighting > novel odor > white noise = confinement.” The authors concluded that the greater the intrusion on the home cage, the greater the stress response in rats. The most sensitive index of stress was body temperature, then heart rate, while activity was a “much less reliable parameter” due to constraints of the telemetry system. Other means of measuring activity would have been helpful.

— Taken from AAALAC's *Keeping Connected* March 6, 2003 —

Animal Use Protocols & ACS Veterinary Consultations

Effective October 3, 2002, Animal Care Services assumed administrative control over the protocol consultation process. All protocols are sent to vconsult@grove.ufl.edu. From there, ACS begins the consultation process and tracks each protocol from the day it is e-mailed to vconsult to the day it is submitted to IACUC. The average consultation review time since October 3, 2002 has been 12 days. Some protocols take longer than usual because they require additional attention or outside consultation review.

American Association of Laboratory Animal Science (AALAS) Technician Certification Classes

Animal Care Services (ACS) is currently conducting AALAS training classes at entry and more advanced levels. Anyone interested in attending these classes may contact Luis Zorrilla at 392-9948, zorro21@vpha.health.ufl.edu. These classes are offered by ACS throughout the year. The classes are aimed at preparing the student to successfully attain the various AALAS certification levels.

AALAS certification is the highest recognition for technicians in the laboratory animal science profession. The AALAS Technician Certification Program was developed to recognize professional achievement and provide an authoritative endorsement of competence in laboratory animal technology.

Importance of AALAS Certification

Respect: Achieving the ALAT, LAT, or LATG designation proves that you have demonstrated the skills and abilities necessary to improve the humane care and treatment of laboratory animals. Receipt of AALAS certification sends a signal to peers that you have studied hard and learned well about the animals entrusted to your care.

Knowledge: Earning AALAS certification affirms your exposure to a wide variety of subjects, including animal husbandry, facility management and administration, and animal health and welfare. By mastering these subjects, your knowledge will be expanded, as will your ability to deal with new problems and situations on the job. The ALAT, LAT, and LATG are instantly recognizable to those working in laboratory animal science as successive levels of achievement in gaining important knowledge about laboratory animal care and use.

Confidence: Achieving AALAS certification is a personal accomplishment in your continuing development as an animal care professional. Your current and prospective employers recognize the value of technical competence. An increasing number of employers are realizing that, through this experience, you will be more knowledgeable and will work more productively. Your confidence will grow as you continue to gain recognition and the respect of your colleagues.

Certification at each level requires meeting prerequisites in education and experience, and passing a corresponding certification examination. Through participation in this program, you can join this outstanding group of dedicated individuals.

Three Levels of Certification

Laboratory animal technicians are certified at three levels:

- Assistant Laboratory Animal Technician (ALAT)
- Laboratory Animal Technician (LAT)
- Laboratory Animal Technologist (LATG)

The following ACS employees have recently received or have attained additional AALAS certification...Travis Cossette LAT, Georgette Dee ALAT, Kate Gilleece ALAT, Luci Kapell ALAT, Holly Lyle LAT, and Luis Zorrilla LAT. This brings our current total of AALAS-certified employees to 14.

For more information on the certification process, click on <http://www.aalas.org/>.

Regulation on Biannual Controlled Drug Inventory

All DEA registrants (practitioners and researchers) are required by Federal Regulations (CFR 21:Section 1304.11 Inventory Requirements) to conduct a physical inventory of all controlled substances in their possession at least every two years and to keep that inventory available for inspection for two years. The inventory is done for C-I & C-II drugs and then C-III-C-V. The inventories minimally should list the drugs, the strength/size of the units and the amounts held, and are completed by giving the registrant's name, the street address (including room number) where the drugs are held and then be signed and dated by the registrant together with her/his DEA number.

For those needing more details you can visit the DEA Diversion web site at <http://www.deadiversion.usdoj.gov/21cfr/cfr/index.html>.

Recently the DEA's Diversion Division has been given a mandate to inspect a proportion of researcher licensees annually and as being the institute with the vast majority of such licenses in Florida we can anticipate some UF labs will be inspected.

FDA's Center for Veterinary Medicine Policy on Compounding of Drugs for Use in Animals

Circumstances exist when it may be necessary for a veterinarian to compound, or direct for a pharmacist to compound an article that will result in a non-approved new animal drug. There is occasionally a need to utilize drugs labeled for human use, and much less commonly, bulk drug substances, for compounding into an appropriate dosage form. Some examples of these situations include: Combinations of anesthetic drugs for titrated administration; preparation of dilute dosage forms for small, young, or exotic species patients; and usage of some antidote preparations. The Agency will exercise regulatory discretion and ordinarily would not take regulatory action against violations of the Act resulting from compounding a non-approved new animal drug if a determination is made that, in order to provide appropriate medical therapy, it is necessary to compound a new animal drug when the following conditions are met:

1. a legitimate medical need is identified (the health of animals is threatened and suffering or death would result from failure to treat the affected animals),
2. there is a need for an appropriate dosage regimen for the species, age, size, or medical condition of the patient, and
3. there is no marketed approved animal drug which, when used as labeled or in an "extra-label" manner in conformity with criteria listed in CPG 615.100, or human-label drug, when used in conformity with criteria listed in CPG 608.100, may treat the condition diagnosed in the available dosage form, or there is some other rare extenuating circumstance (for example, the approved drug cannot be obtained in time to treat the animal(s) in a timely manner, or there is a medical need for different excipients).

For more information on this policy, go to http://www.fda.gov/ora/compliance_ref/cpg/cpgvet/cpg608-400.html.

ACS Staff Announcements

ACS has recently hired Mitzi Calvert as Accounting Coordinator. You may know Mitzi from her many years of work in the Health Science Center. Mitzi is a graduate of the University of Florida and has almost 20 years experience in the fiscal area at the Health Science Center. Mitzi and the fiscal team at ACS are committed to ensuring that all fiscal transactions with ACS are done in an accurate and timely manner. If you have a problem or concern, please feel free to give her a call at 846-0975.

News from Charles River Laboratories

Charles River Laboratories is perhaps best known as a supplier of high quality research animals. However, investigators should also be aware that various rodent disease models and several support services are also offered.

Disease Models

Rodent disease models for use in biomedical research exhibit spontaneous disease characteristics such as diabetes, obesity, cardiovascular and renal disease. Here are a few examples:

- ZDF Rat** exhibits insulin resistance, hyperinsulinemia, NIDDM, obesity, and nephropathy
- SPR Rat** (Stroke Prone Rat) exhibits insulin resistance, hyperinsulinemia, hypercholesterolemia, and nephropathy
- GH Rat** (Genetically Hypertensive) exhibits hypertension and cardiac hypertrophy and vascular lesions
- SHHF Rat** exhibits congestive heart failure, hyperinsulinemia, insulin resistance

Twelve disease models are currently available.

Transgenic Services

Investigators working with transgenic and knockout models should be aware that Charles River offers various support services.

Colony maintenance and development

Isolator maintenance is available for customized breeding projects such as backcrossings, animal quarantine, as well as routine breeding. Each isolator is an independent "barrier room" which eliminates the risk of cross contamination. Three sizes of isolators are available to "lease" on a monthly basis as follows:

3 ft isolator	18 mouse or 9 rat cages
6 ft isolator	30 mouse or 12 rat cages
8 ft isolator	64 mouse or 24 rat cages

The isolator becomes an extension of your laboratory, and you maintain control.

Cryopreservation

For transgenic and knockout lines being maintained but not actively used, cryopreservation frees up cage space and eliminates long term per diem costs, protects valuable lines against the risks of contamination, disaster, and genetic drift, and offers the option of bringing the line back should there be a future application.

Rederivation

Embryo transfer eliminates pathogens that can interfere with research. Projects are conducted in the bio-security of isolators which provide complete containment for the original "contaminated" colony and protection of the health status of the newly-rederived colony.

Genetic Monitoring and Accelerated Backcrossing

For researchers doing backcrossings, a speed congenics program called **MAX-BAX** (Marker-Assisted Accelerated Backcrossing) can save from 1 to 1 ½ years off a typical 9-10 generation backcrossing. Charles River uses microsatellite analysis to help you undertake a selected rather than random breeding project. This same technology is also used for background strain characterization and estimating genetic variation/drift.

Improved Climate-Controlled Truck Delivery to U. Florida

Effective Tuesday, April 29th, research animals from Charles River Laboratories will arrive at U. Florida between 8:00 and 9:00 am every Tuesday. This improved truck delivery offers researchers at U. Florida the following benefits:

- Animals arrive earlier in the week (Tuesday rather than Wednesday).
- Animals from all Charles River plants (except California) ship by climate-controlled vehicles from our door to yours--no more partial air shipments.
- Animals shipping from your primary production plant in Raleigh, NC, arrive next day--pack Monday, arrive Tuesday.
- Researchers pay truck freight for all shipments--no more
- air freight charges from plants other than Raleigh.
- Animals arrive less stressed, ready to support investigators' research schedules.

For further information on any of these products and services, please contact **Marcia Murphy**, Charles River Account Manager, at **800-837-3717** or by E-mail at mmurphy@criver.com. The Charles River web site is www.criver.com.

Disclaimer: ACS does not endorse advertisement or announcements from outside vendors. We will begin adding information from various vendors as a service to investigators.

Miscellaneous

***Under Veterinary Care* cage Rodent Cards**

If you see a pink *Under Veterinary Care* cage card in one of your animal cages, please do not throw them away. This is an animal record, which must be filed by ACS.

New Surgery Fees

ACS has renewed the large animal surgery fee schedule and will be posted in the ACS website. Minor adjustments will be done to the fee schedule on a yearly basis.