



## AAALAC International Awards Pitt Continuing Full Accreditation

*Bill Yates, Ph.D, Co-Director RCCO*

As you may recall, last fall The Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International reviewed the University of Pittsburgh's animal program. A team of AAALAC representatives reviewed the University's Program Description and then conducted a site visit of our facilities during the week of November 12, 2007.

All individuals who engage in animal care and use at the University are to be commended for their tireless efforts to maintain a high-quality program.

Based on this thorough assessment, the Council has awarded the University continuing full accreditation status.

This indicates that our program fully meets or exceeds all requirements set forth in laws such as the Animal Welfare Act (AWA) and by funding agencies such as the National Institutes of Health (NIH). It is noteworthy that this is the second consecutive site visit by AAALAC where our institution was awarded full accreditation status. All individuals who engage in animal care and use at the University are to be commended for their tireless efforts to maintain a high-quality program.

### AAALAC Exit Interview Notes

*IACUC Summary of AAALAC Findings and University Corrective Actions*

AAALAC CONCERNS	NEW GUIDELINES
1) Post-op analgesia administered solely in food and/or water.	1) Initial administration of an injectable form of medication or an assurance (based on peri-operative monitoring) that animals are eating and drinking promptly after anesthetic recovery.
2) Zebrafish and amphibians euthanized with unbuffered Tricaine.	2) Tricaine must be buffered with sodium bicarbonate. See Guidelines for Euthanasia of Amphibians, Fish, and Reptiles for more details and instructions for mixing and storing a stock soln: <a href="http://www.iacuc.pitt.edu/sop/policies/DesignSmAnimalStudy.asp">www.iacuc.pitt.edu/sop/policies/DesignSmAnimalStudy.asp</a>
3) Pithing frogs preceded by ice immersion as euthanasia.	3) If ice is to be used, animals must be anesthetized prior to freezing. Quick freezing of deeply anesthetized animals is acceptable. Rapid freezing as a sole means of euthanasia is not considered to be humane.
4) Bullfrogs housed in rat cages with metal lids	4) Ensure that animals can exhibit species-typical behavior without the risk of injury.
5) Contamination of cloth covers (used over nonhuman primate transport devices) when stored outside the transport device.	5) Keep cloth covers in an enclosed container when not contained in the nonhuman primate transport device.
6) Potential exposure to airborne formaldehyde where animals are perfused over a sink using a 4% formaldehyde solution.	6) Environmental Health and Safety (EH&S) routinely monitors potential airborne formaldehyde exposure across the animal program and works with users and facilities personnel to implement effective controls. For concerns of this nature, contact EH&S at 412-624-9505 or <a href="mailto:safety@ehs.pitt.edu">safety@ehs.pitt.edu</a>



### AALAS VENDOR DAY

Date: Thursday, June 26  
Location: S120 BST  
See flyer on page 8

### Editor's Note

The Education and Compliance Office (ECO) welcomes participation in the IACUC newsletter.

If you have IACUC related editorials, articles, or questions for the FAQ section, please email your submission to Julie Cursi, [cursija@upmc.edu](mailto:cursija@upmc.edu).

ECO Editors will review all articles for possible submission into the next IACUC newsletter.

Thank you in advance for your editorials, articles, and FAQs.

# Health Sciences Library System Update

Melissa Ratajeski, MLIS, RLAT, HSLs Faculty Reference Librarian  
University of Pittsburgh

## HSLs CLASSES

The Health Sciences Library System (HSLs) offers a variety of classes to faculty, staff, and students of the University of Pittsburgh schools of the health sciences and employees of UPMC. There is no charge and no registration is required. Seating for classes is first-come, first served until the class is full. Class topics include database searching (e.g. PubMed Basics) software (e.g. Advanced PowerPoint for Presentations), bibliographic management (EndNote Basics), molecular biology and genetics (e.g. Protein Analysis Tools), and library orientations. For a complete listing of classes, visit [www.hsls.pitt.edu/services/instruction/desc](http://www.hsls.pitt.edu/services/instruction/desc).

### BioMedProtocols.com:

#### A Resource for Biomedical Research Protocols

Are you learning how to work with microRNAs? Trying to get a handle on gene expression assays? Looking for techniques to analyze protein-protein interactions? Working with a new animal model? HSLs is here to help by providing access to **BioMedProtocols.com**, an electronic book database containing full text biomedical and biological research protocols from five titles in the popular Methods series by Humana Press: *Methods in Molecular Biology*, *Methods in Molecular Medicine*, *Neuromethods*, *Methods in Pharmacology and Toxicology*, and *Methods in Biotechnology*.

BioMedProtocols.com contains more than 16,000 peer-reviewed protocols that are available as PDF files. Examples of highly accessed protocols include "Microarrays: An Overview" and "Vectors and Strains for Expression."

BioMedProtocols.com offers a number of ways to locate protocols of interest, including a basic search box, author lookup, and browse by category. Examples are provided to assist you with formulating your search. Recent top searches include "ubiquitin," "animal models," and "protein design." Users may register for an account to save searches and/or receive BioMedProtocols.com content alerts.

To access BioMedProtocols.com, type "BioMedProtocols" into the search.HSLs quick search box at [www.hsls.pitt.edu](http://www.hsls.pitt.edu).

This article was adapted from an *HSLs Update* article written by Carrie Iwema.

## BOOKS OF INTEREST

The below books are located at Falk Library, 200 Scaife Hall, and can be checked out for 3 weeks. To locate more titles of interest, search the card catalog, PittCat, at:

<http://pittcat.hsls.pitt.edu>

*Biological Safety: Principles and Practices*  
Call number: q QR64.7 .L33 2006

*Clinical Laboratory Animal Medicine: an Introduction*  
Call number: SF996.5 .H65 2007

*The Mouse in Biomedical Research*  
Call number: q QL737.R638 M68 2007

### Need Help with IACUC Literature Searches?

As required by the Animal Welfare Act and the Institutional Animal Care and Use Committee (IACUC), investigators must consider alternatives to procedures that may cause pain or distress to animals used in research. The USDA and IACUC considers the performance of two database searches as an effective method for demonstrating compliance with this requirement. To schedule a consultation or seek assistance on searching the literature for animal alternatives, contact Melissa Ratajeski, MLIS, RLAT at [mar@pitt.edu](mailto:mar@pitt.edu) or 412-648-1971.

Ratajeski is a faculty reference librarian at HSLs. She earned a BS degree from the University of Pittsburgh in biological sciences and psychology with a related concentration in chemistry, and completed a MLIS degree from Pitt's School of Information Sciences. Before joining HSLs, Ratajeski worked as a Research Assistant and Research Coordinator in the Neurobiology department for Dr. Peter Strick.



## Enrichment vs. Treats: What is the Difference?

Russell Yothers, rLATG, DLAR Enrichment Specialist  
University of Pittsburgh

**What is Environmental Enrichment?** Environmental Enrichment is the provision of enhancements to the captive environment to promote the expression of species typical behaviors as a sign of psychological and physiological well being. In other words, it is allowing a caged animal to express more wild or natural behaviors, decreasing any detrimental effects of the caging on *both mental* and *physical* health. This includes, but is not limited to, providing shelters and nesting materials to species that naturally nest; group housing and/or human interaction to social species; opportunities to play, climb, run, swim, or jump, as appropriate; and the ability to forage for some or all of an animal's diet. In some species, such as nonhuman primates, this should also include control over aspects of the environment, proper rearing of infants, manipulatable objects, and novel stimulation of all five senses.

**Are treats Environmental Enrichment?** Novel treats can be used as an Environmental Enrichment, as they can stimulate different taste and tactile sensations. Sweetness, saltiness, bitterness, and sourness, along with different temperatures, textures, and other variances, stimulate the senses in the same fashion as the varied foods some species encounter in the wild. This stimulation can be very effective in small doses, and have a lasting effect long after the treat is consumed. Provision of treats also serves as a positive reinforcement and human socialization tool. One must remember, however, that provision of novel treats should *not* be used as the sole, or even main, source of Environmental Enrichment. This leaves a wide array of other behaviors unavailable or under stimulated. When treats are presented in a way that requires an animal to search, remove coverings, or solve a puzzle to obtain them, cognitive ability and foraging behavior is also stimulated.

**Why should treats be limited?** Treats, especially those high in fats and sugars, should be limited to just enough to provide some stimulation or provide a lasting foraging experience. Very few wild species have access to many of these sweets, and consumption of them is not a typical behavior. Over use of treats can cause an animal to refuse to eat standard diets specifically formulated to meet the nutritional needs of the animal. These standard diets are also nutritionally balanced, and any additional nutrients supplied by treats will unbalance the overall diet of the animal. Also, captive animals typically burn fewer calories on a daily basis than do their wild counterparts. Therefore, excessive provision of these treats can quickly lead to clinical issues, such as malnutrition, obesity, and diabetes, as well as poor dental health and other complications. This is counterproductive to the goal of environmental enrichment, as it has a negative, rather than positive, effect on the physiological well being of the animal. Any painful or distressful symptoms of

such clinical issues can also have further detrimental effects on the psychological well being of the animal as well. Blood chemistry, immune system response, and neurological changes associated with these effects on well being can also have significant impact on experimental goals.



**What is an acceptable use of treats?** The Enrichment Specialist, in conjunction with the DLAR nutrition subcommittee, will establish species specific guidelines regarding upper limits of serving size and frequency for foods used for enrichment. As a general rule, no more than a small handful of any treat should be used, and foods high in fats and sugars should be limited to once or twice per week, at a maximum. These should be replaced with healthier and species appropriate choices, when available, and access to these should include more difficult manipulation of foraging devices or longer

periods of interaction when used for human socialization. Anyone providing a food based enrichment should remember that it is the quality of the presentation of these foods that is most important, not the quantity or flavor. For example, five grapes requiring 30 minutes of puzzle manipulation is far more effective on a nonhuman primate's psychological well being than a large handful of marshmallows that is consumed in mere seconds, and the overall nutritional impact on clinical health is reduced as well. Both, however, will provide novel sweetness stimulation to the taste buds.

### References:

- Anonymous (2001). Enrichment discussion: The sugar question. *Laboratory Primate Newsletter* 40[3], 6-8.
- National Research Council (2003). *Nutrient requirements of nonhuman primates. 2nd Revised Edition.* 259-265. Washington, DC: National Academy Press.
- Petto A. J., & Devin M. (1988). Food Choices in Captive Common Marmosets (*Callithrix jacchus*). *Laboratory Primate Newsletter* 27[3], 7.
- Plesker R., & Schuhmacher A, (2006). Feeding fruits and vegetables to nonhuman primates can lead to nutritional deficiencies. *Laboratory Primate Newsletter* 45[4], 1-5.



## IACUC Training Modules

Web based versions of Large Animal training and Nonhuman Primate training are currently under development. Therefore, Large Animal and Nonhuman Primate training sessions will continue to be shown in VHS format in the Hieber Pharmacy building in Oakland until further notice. ECO's target for completion is winter '08-'09. In the meantime, Large Animal training is offered every Wednesday at 1:30, and Nonhuman Primate training is offered every Thursday at 1:30. Both videos run until 3:00.

Location: Hieber Pharmacy Building, 3500 Fifth Avenue (corner of Fifth and McKee), Suite 206. Contact Julie Cursi, IACUC Training Coordinator for scheduling, directions, and questions: [cursija@upmc.edu](mailto:cursija@upmc.edu) / 412-383-1737.

All other IACUC training modules are available online at <http://cme.hs.pitt.edu>. Login and click the CME folder called **Responsible Conduct of Research** to access IACUC required modules.. The chart below shows the current status of all IACUC training modules / sessions:

IACUC MODULE	REQUIRED FOR:	FORMAT AND LOCATION	RECERTIFICATION REQUIRED?
Research Integrity (Module 1)	All researchers	Web: <a href="http://cme.hs.pitt.edu">http://cme.hs.pitt.edu</a>	No - take only once
Use of Laboratory Animals in Research and Education (Module 3)	Researchers intending to use animal models or expecting to be listed on an IACUC protocol.	Web: <a href="http://cme.hs.pitt.edu">http://cme.hs.pitt.edu</a>	Yes - every three years
Small Animals Research and Training	Researchers intending to use mouse and/or rat models.	Web: <a href="http://cme.hs.pitt.edu">http://cme.hs.pitt.edu</a>	Yes - every three years
Large Animal Training	Researchers intending to use * AWA covered animal models.  * Animal Welfare Act. e.g. cats, chinchillas, cows, dogs, ferrets, guinea pigs, goats, hamsters, pigs, prairie dogs, rabbits, and sheep.	VHS: see above for location and schedule.	VHS format: No - take only once.  Web based format (under development): Recertification will be required every three years after initial completion of online version.
Nonhuman Primate Training	Researchers intending to use nonhuman primate models.	VHS: see above for location and schedule.	VHS format: No - take only once.  Web based format (under development): Recertification will be required every three years after initial completion of online version.



## Revision of Pre-op Fasting SOP

Charles "Bud" Burnett, Executive Director DLAR  
University of Pittsburgh

In January 2008, the DLAR created a new Standard Operating Procedure (SOP) in an effort to improve non-human primate (NHP) fasting methods. As part of the new SOP, all NHP fasting requests that precede a major procedure should be submitted on DLAR's standardized fasting request form, and will be processed through the centralized fasting request email account: [npo@dlar.pitt.edu](mailto:npo@dlar.pitt.edu). Both the request form and the fasting instructions are located on the DLAR website: [www.dlar.pitt.edu](http://www.dlar.pitt.edu).

DLAR Veterinary Services has defined a major procedure as any anesthetic event that requires intubation and/or prolonged sedation. All invasive operative procedures and all imaging procedures are considered to be major, and therefore, require the use of the above described form. If you would like clarification about a specific procedure, please contact your facility veterinary technician, or the DLAR receptionist ([dlar@pitt.edu](mailto:dlar@pitt.edu); 412-648-8950). To obtain information about minor procedure fasting methods, please contact your facility supervisor or the DLAR receptionist.

As part of the new SOP, the DLAR has created standardized room level and cage level signage that indicates a fast is in progress. These signs, as well as the request form, are posted during an active fast in an effort to minimize the potential of accidental feeding. In addition, all bedding is now removed during the fast so that the NHP cannot ingest the bedding material. If you have any additional requests, such as fluid restriction, please include the request in the "Special Instructions" portion of the fasting request form, and it will be reviewed by a member of Veterinary Services.

As a future initiative, the DLAR intends to create a web-based, fasting request process that can easily encompass all species and requests. It is our sincerest hope that the current procedures, as well as future fasting initiatives, will strengthen the DLAR's services to the research community.



## Revision of Surgical Guidelines

IACUC

Section VI B of *Guidelines for Surgery* has been updated to establish clarity and consistency in IACUC medical record-keeping guidelines for rats, mice, and birds. These updates will also be incorporated into *Medical Record Keeping Requirements - Rodents*.

*Guidelines for Surgery* can be found here:

[www.iacuc.pitt.edu/sop/surgicalGuidelines.pdf](http://www.iacuc.pitt.edu/sop/surgicalGuidelines.pdf)

*Medical Record Keeping Requirements - Rodents* can be found here:

[www.iacuc.pitt.edu/sop/policies\\_DesignSmAnimalStudy.asp](http://www.iacuc.pitt.edu/sop/policies_DesignSmAnimalStudy.asp)



## DLAR News and Updates

*Charles "Bud" Burnett, Executive Director DLAR  
University of Pittsburgh*

### Recent Changes within the DLAR

The following announcement is to inform you of key changes in personnel and of program improvements.

#### Key Changes in Personnel

Veterinary Services:

**Dr. Robert Wagner** serves as Chief of Veterinary Surgical Support Services.

We are also pleased to announce that **Ms. Diann Funk-Flavin** has joined the DLAR as the Manager of Surgical Research. She comes to us from Massachusetts General Hospital, with over 13 years of experience, and is a Certified Veterinary Technician with AALAS LAT certification.

**Dr. Chris Janssen** now provides research support for projects using Non Human Primates, imaging, and other procedural support. He assumes the duties and responsibilities previously held by Dr. Anita Trichel who now serves as the Clinical Veterinary Director, RBL.

**Dr. Mike Winnen** and **Dr. Sai Tummala** have assumed the responsibility of day to day rodent management issues, such as quarantine, import/export issues, cell line verification programs, and the Quality Assurance Rodent Sentinel Programs.

We are pleased to announce that as of July 1, 2008 **Dr. Shawn Rosensteel**, a recent graduate of Penn State University Laboratory Animal Residency Program, will join our staff as a Clinical Veterinarian.

**Mr. William Cassidy** formally working in Animal Husbandry Services has been promoted to the second Animal Enrichment Specialist within the DLAR. This is to accommodate our needs for both Non Human Primate and other species enrichment as our program continues to expand.

As part of your research support, if you need assistance in contacting any of these individuals, please contact DLAR@pitt.edu or call our central office at 412-648-8950.

Husbandry Services:

**Ms. Kathleen McDonald** was promoted to the Senior Leadership position, Associate Director of Husbandry Services. Her former position, Manager of Husbandry Services is currently posted for recruitment.

**Ms. Paula Chalmers** and **Mr. Ron Heberling** began serving as the new SBST Husbandry Services Supervisors.

**Mr. David Grainy**, Research Technician III, was recruited to assist with oversight of the BST3 aquatics area.

Administration:

**Mr. Mauro Nofi** was hired as Financial Specialist.

**Mr. Tony Scarpari** was hired as Web Developer.

**Ms. Sally Caine Leathers**, Administrative Assistant and HR Specialist left the DLAR in May to pursue her continuing education. Her position is currently posted for recruitment.

#### **Program Improvements:**

The DLAR Animal Transport SOP was modified to clarify established guidelines for inclement weather transport.

The Nutrition Committee devised a plan to score non-human primates on their body fat content. Any animal that does not receive an optimal rating will be placed on a modified feeding regimen until they achieve optimal body weight.

An SOP titled, "Fasting Procedures for Non-Human Primates" was developed and implemented to standardize communications and procedures involving pre-surgical and pre-procedural fasting of our non-human primate colony. The new researcher completed "DLAR NHP Fasting Request Form" serves as the notification request to the DLAR. This form along with door signage is posted to indicate fasting is in progress.

Dr. Chris Janssen, Clinical Veterinarian, and Education Coordinator for the local American Association for Laboratory Animal Science (AALAS) Three Rivers Branch (TRB) is conducting ALAT certification classes for DLAR employees and TRB members.



# IACUC and Compliance FAQ Center

## PROTOCOL ADMINISTRATION FAQ

**Q** How long does it take to get my protocol application approved?

**A** Review time is variable depending upon the complexity of each study. However, the following practices will help reduce “time-obstacles”.

Make sure your protocol application:



- o is clear (even to professionals outside of your field).
- o is thorough (complete every section).
- o is accompanied by an EHS workbook.
- o includes a power analysis.
- o includes animal numbers projected for 3 years supported by a power analysis (upon submission).

**Q** What is contained in a 7-digit IACUC protocol number?

**A** The original approval date, which remains the same for the duration of a protocol (3 years).

- o Protocol 08 01 357: 08 = Year of approval
- o Protocol 08 01 357 :01 = Month of approval
- o Protocol 08 01 357 : 357 = Unique identifier

Administrative renewals occur every year for two years. IACUC coordinators email renewal-reminders directly to Principal Investigators at 90, 60, and 30-days prior to expiration date.

Protocol numbers expire on the third-year and last day of the protocol’s approval month. (e.g. protocol 0801357 expires on January 31, 2011).

**NOTE:** If you want to continue your project, submit a three-year renewal (a new protocol application) to the IACUC ([iacuc@pitt.edu](mailto:iacuc@pitt.edu)) at least three months prior to the third-year expiration date, or as soon as you receive a 90-day three-year renewal notice from the IACUC.

## COMPLIANCE FAQ

**Q** If a substance is labeled “Do not use after 4/08”, do I have to worry about the exact day of expiration?

**A** Drugs labeled in this manner are in compliance until the last day of the month (e.g. 4/08 would be in compliance until April 30, 2008).

**Q** How often do I need to have my gas anesthesia vaporizer recertified?

**A** Every two-years. See [www.iacuc.pitt.edu/sop/Vaporizer.pdf](http://www.iacuc.pitt.edu/sop/Vaporizer.pdf) for details and service sources.

**Q** I moved to a new lab, how do I obtain up-to-date signage?

**A** Email Julie Cursi, IACUC training coordinator ([cursija@upmc.edu](mailto:cursija@upmc.edu)) for signage.

**Q** If I move to or from an Outside Use Area (non-DLAR space), do I need to notify the IACUC?

**A** Yes. You email a modification application to the IACUC ([iacuc@pitt.edu](mailto:iacuc@pitt.edu)) for review of your Outside Use Area Location Change.

**Q** As a DEA license holder, is it okay to transfer controlled substances to a non-DEA licensed researcher at Pitt?

**A** No. Controlled substances may only be transferred between two DEA license holders.

**Three Rivers Branch of AALAS  
Vendor Day 2008  
Thursday, June 26  
S120 BST University of Pittsburgh**

**Theme: “Food, Bedding and Environmental Enrichment”**

- Vendor booths will be set up in the lobby from 10 am to 2 pm.
- Presentations by vendors during lunch, from 11 am to 1 pm
- Drawings held after each presentation, must attend presentation to win.
- Vendor Display Booth Challenge— pick up a questionnaire and visit the different display booths for answers. At the end of the day, a winner will be drawn from questionnaires with correct answers.

**Pirates vs Yankees — Pre-Vendor Day Party**

Wednesday, June 25th  
Shootz Café, Southside  
2505 Carson Street  
6 pm to 10 pm

Branch will provide wings, pizza, and non-alcoholic drinks

Vendors, friends and family invited