RESEARCH ANIMAL COORDINATOR
A New Initiative of the Animal Care & Use Program

The Duke Animal Care & Use Program is initiating a new training and certification program for individuals wishing to serve as their laboratory ‘go-to’ person for animal care and use activities. Referred to as the Research Animal Coordinator (RAC), individual’s who participate in this training program will receive specific and detailed information which will assist in efficient and compliant animal use in the laboratory. Those who achieve certification may be designated by the Principal Investigator to serve as the laboratory coordinator or laboratory point-of-contact for animal activities—RACs will serve as in-lab ‘experts’ regarding animal care & use. RACs will become skilled at protocol development, protocol processing, compliance auditing, animal care expectations, effective anesthesia and analgesia, aseptic technique, DLAR husbandry procedures, facility security, alternatives and literature searches, and much more.

This program has direct research applicability for the researcher and laboratory staff, but also provides benefits for the RAC. Successful candidates may use their RAC training as a springboard for certification with the American Association of Laboratory Animal Science as an Assistant Laboratory Animal Technician, a Laboratory Animal Technician, or a Laboratory Animal Technologist.

The RAC program is Duke IACUC endorsed, is voluntary, and is offered at no-cost by the Duke Animal Care & Use Program. Mr. Bill Wade, LATg (Compliance Liaison with the Office of Animal Welfare Assurance) will serve as RAC program facilitator. Michelle Calkins, LATg (Division of Laboratory Animal Resources) will serve as co-facilitator. The approach to training is multi-modal education—a combination of web-modules, small group discussions, hands-on wet-labs, and seminars with program leaders. The RAC candidate will be evaluated throughout the program for competency. Those meeting the knowledge and skill requirements will be certified as a Duke ACUP RAC. As a certified RAC, each individual can facilitate humane, compassionate, and efficient research for their PI and the research associates in their defined area.

Select instructional areas of the RAC program include:

- Protocol application and amendment development: The RAC will receive tips and suggestions for writing an animal use application which is complete and will pass muster at IACUC review. The RAC will be able to facilitate with the principal investigator through the application processes.
- Protocol and grant concordance: The RAC will be trained in performing grant:protocol concordance reviews. The RAC will be able to perform a pre-concordance review to create a rapid turn-around of the concordance review process when needed by the IACUC.
- Policies and guidelines: The RAC will receive training in Duke animal program polices, interpretation and application of the Duke policies, and the differences between polices and guidelines. The RAC will know how to select applicable policies for given situations, how to request modification (or exemption from) of existing policies, and what other guidance resources are available to researchers at Duke.
- Laboratory Personnel Training: The RAC will receive advice and direction on effective monitoring of laboratory personnel training status and recommendations to ensure that all members are up-to-date on training.
- Laboratory Resources: The RAC will be seen as the ‘first responder’ on questions on animal welfare and well-being.
- Basic Animal Procedures: The RAC will receive wet-lab training and be able to instruct laboratory personnel on appropriate animal handling and select animal procedures.
- Laboratory Liaison: The RAC will have the skills to serve as a liaison between the laboratory and the Duke IACUC, OAWA and DLAR.

(Continued on Page 2 … See RAC)
Mentor: The RAC will have the skills to educate, facilitate, and/or assess aseptic skills of lab members, animal monitoring post-procedure skills, and necessary record keeping.

Animal Care & Use Compliance: The RAC will have the knowledge to effectively guide laboratory personnel in reporting animal concerns, protocol noncompliance, and devising self-corrective measures which have a high likelihood of being IACUC approved.

Ombudsman: The RAC can serve as a central laboratory member who may disseminate updates on animal care or use issues (e.g. protocol information, new or modified policy updates).

The RAC program consists of two PHASES. The successful candidate will complete both ‘PHASES’ of the RAC program:

- **PHASE I:** PHASE I includes all Core RAC material and is required of all candidates. Core material training is approximately 80% web module training, which can be accomplished at the convenience of the candidate, but within the range of dates for the specific RAC class. The remaining sessions are small group seminars with selected animal program leadership. The Curriculum Matrix is available on request and provides more detail.

- **PHASE II:** Species specific training. Each RAC candidate will select one or more species for Phase II training. The discussions and activities of PHASE II will focus on the specie(s) in use in the RAC candidate’s laboratory. See the Curriculum Matrix for more detail.

To maximize learning opportunities, each RAC class will consist of 8-10 candidate RACs. Each class is scheduled to be completed in 12-16 week cycles. For more information on the Duke Research Animal Coordinator Training and Certification Program please join us for our “Brown Bag” seminar on July 23 at the Bryan Conference room at noon, or call Mr. Bill Wade at 668.6722 or email w.wade@duke.edu

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**NEW ONLINE VIDEOS EXPLAIN NIH PEER REVIEW AND PROVIDE TIPS FOR GRANT APPLICATIONS**

The NIH Center for Scientific Review (CSR) has released a new video showing how the NIH assesses more than 80,000 grant applications annually in order to identify the most promising. A companion CSR video entitled, “NIH Tips for Applicants” provides those new to the system, as well as experienced researchers, with additional insights from NIH reviewers and staff members.

Both videos reflect many of the recent enhancements to the NIH peer review systems. They replace a similar widely-viewed CSR video. The new videos may be seen and downloaded from the CSR website, at: [http://www.csr.nih.gov/video/video.asp](http://www.csr.nih.gov/video/video.asp)

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**SURGICAL RESEARCH CERTIFICATION**

The Academy of Surgical Research (ASR) provides a certification program for researchers and research associates. The ASR offers three levels of certification:

- **SRA:** Surgical Research Anesthetist
- **SRT:** Surgical Research Technician
- **SRS:** Surgical Research Specialist

The ASR has certified over 500 individuals since the certification program’s initiation over 25 years ago. For more information, visit the Academy’s web site at: [http://www.surgicalresearch.org](http://www.surgicalresearch.org)

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**THE NEW GUIDE**

The Institute of Laboratory Animal Resources (ILAR) recently announced the release of the eighth edition of the National Research Council’s Guide for the Care and Use of Laboratory Animals. The eighth edition attempts to improve short-comings in the prior version by integrating recently published data into the narrative.

Scientific principles, and expert opinion was used to define practices for the humane care and use of animals in research, testing, and teaching. The Guide is an internationally accepted primary reference on animal care for the scientific community. The Guide serves as Duke’s primary reference for expectations of animal care and use.

Previous editions have served as the basis for accreditation of institutions worldwide by the Association for Assessment and Accreditation of Laboratory Animal Care International. Also, use of previous editions has been required for researchers receiving grants support from the United States’ National Institutes of Health.

The eighth edition of the Guide includes expanded coverage of the ethics of laboratory animal use; components of effective Animal Care and Use Programs; and new guidelines for the housing, environment, and enrichment of terrestrial and aquatic animals, and for veterinary and clinical care.

The new Guide will be the basis for the Duke animal care program moving forward. Stay tuned to ‘Animal Tracks’ for changes in procedures at Duke that may be required by the new Guide.
A REMINDER ON APPROVED SECONDARY METHODS OF EUTHANASIA

The Duke University and DUMC IACUC policy on Euthanasia dated October 23, 2008 outlines the approved secondary methods of euthanasia following CO2 asphyxiation. They are as follows:

- Bilateral Thoracotomy
- Collection of tissues sufficient to ensure that the animal will not recover
- Exsanguination

**CERVICAL DISLOCATION IS NOT AN APPROVED METHOD OF SECONDARY EUTHANASIA**

It is particularly important to note this when developing protocol amendments. An approved alternative must be listed or a request for exception to approved methods, with scientific justification, when submitting documents to the IACUC for approval. Please ensure that your staff is notified of this policy and aware of the appropriate techniques they must employ.

If you have any questions about the use of CO2 or secondary methods following CO2 exposure please contact the Office of Animal Welfare Assurance.

THE BASICS OF RUNNING A PI MANAGED HOUSING FACILITY

If your lab has been approved as a PI managed facility, you should know that there are specific requirements for working in and maintaining these areas. Here are some highlights. PI Managed Housing Facilities require:

- Initial IACUC approval followed by annual re-approval through inspection by site team.
- Contact person assigned for each lab/facility that is approved.
- Twenty-four hour temperature and humidity monitoring.
- Accurate and complete record keeping.
- Training for all lab staff involved in the animal care.

Daily Husbandry Procedures:

- Animal observations (required by federal guidelines).
- Environmental monitoring (temperature – humidity – air flow).
- Provide food and water (check daily to ensure quality).
- Cleaning of the housing area (sweep – mop – disinfect).
- Check live traps (if used) for escaped or feral rodents.
- Document all daily husbandry procedures.
- Housing approved for longer periods may require cage changing, weekly cleaning.
- Monthly requirements include sanitizing of the room, equipment (caging), feed and bedding containers, etc.
- Report animal health issues and emergencies to the ‘On-Call’ DLAR veterinarian (970.9410).

Administrative Procedures:

- Ensure that cage cards are current and correctly reflect the protocol, species, etc.
- Each lab must submit an SOP describing care practices to the OAWA
- An Adverse Event Mitigation Plan outlining disaster response and names of responsible individuals must be provided to OAWA
- Maintain all records and have them available for site team inspections.
- Have lab SOPs and protocol documents available/accessible for all lab staff.
- Contact the OAWA about any changes to the approved procedures, location, etc. and sub-
Summer is a great time for potential young scientists to gain valuable experience working in a "real world" research laboratory. However, if you plan on hosting minors (anyone under the age of 18) this summer, there are special Duke policies to protect the institution and the young scientist!

Research laboratories can have a number of physical, chemical, radiological and biological hazards which may be unfamiliar to minors, and these policies help keep young scientists safe while learning critical skills for their science future.

The Occupational and Environmental Safety Office (OESO) safety policy that covers minors and nonemployees in the work area (http://www.safety.duke.edu/SafetyManuals/University/I_6MinorsNon-Employees.pdf):

♦ No one under the age of 14 can work or volunteer at Duke Medicine.
♦ Children under 14 must have written OESO approval to enter a lab.
♦ Youth between 14-17 may not perform any work that is determined to be hazardous or potentially harmful, including:
  ♦ work that may expose them to infectious diseases transmitted via aerosols; or
  ♦ tasks that may expose them to blood or body fluids (infectious diseases or hazardous chemicals as listed on OESO’s Particularly Hazardous Substance List available at the web link (http://www.safety.duke.edu/LabSafety/Docs/PHS_by_CAS.pdf); or
  ♦ areas where there is potential exposure to radiation in excess of 0.1 rem (0.001 sievert) total effective dose equivalent or in excess of 10% of the limits for general employees. No minor is allowed to handle radioactive materials directly. If an AU (Authorized User) is planning on

hosting minors in the lab this summer, notify the Radiation Safety Officer (684-2194) prior to their arrival; or
♦ areas that are under construction; or
♦ areas where ABSL2 studies are being conducted.

In addition, OESO requires supervisors/PIs to fill out the “Workplace Safety Statement for Minors and Non-Employees at Duke” for any minors they wish to bring into the lab. The form can be found on the OESO Laboratory Environment page, under the “Lab Safety Audits and Onsite Evaluations” heading (http://www.safety.duke.edu/LabSafety/Default.htm). Once completed, this form should be sent to OESO Laboratory Safety for approval (fax: 681-7509).

Because of additional hazards that exist in animal facilities, as well as for protection of the animals, the Division of Laboratory Animal Resources (DLAR) policy is that no one under the age of 18 is permitted to enter any areas where lab animals are present. The only exceptions to this are minors who are Duke employees (i.e., summer interns) that have been given a risk assessment by EOHW medical personnel. Contact with lab animals means potential exposure to animal hair, dander and urine proteins, which can contribute to allergies. There is also the potential for exposure to infectious diseases that can be transmitted to humans or other animals. If you are considering employing minors in animal facilities this summer, please contact the main DLAR number (684-2797) for more information.

The OESO policy states that “employees who escort or supervise the activities of minors and other non-employees shall assess the potential risk of exposure to hazards and direct the non-employee’s access accordingly”.

Assessing this potential risk includes supervisors orienting the minors to their work area, including providing any orientation training needed. For example, DLAR requires any minors working in its facilities to complete the "Hazard Awareness for Animal Facilities" training. Summer jobs and internships can be a great way for teens to gain some valuable work experience, and it introduces them to a variety of work environments. But minors in labs require additional protections, and we need to help keep them safe while hosted in our labs.

For more information (OESO policy): call 684-2794.
For more information (DLAR policy): call 684-2797
FALL 2010 IACUC SEMIANNUAL SITE VISIT SCHEDULE

It may seem a little early to be talking about the Fall schedule but it draws near. Please note the date for your respective facility. The inspections take place from 1:00 to 4:00 PM.

7.21.10: KLOPFER FARM
8.4.10: LSRC—SANDS
8.11.10: GSRB2
8.18.10: BRYAN—NANALINE DUKE
8.25.10: JONES—ENGINEERING (TEER) - RP BUILDINGS - GSRB2 ANNEX—GSRB1
9.1.10: MARINE LAB—MUSEUM OF LIFE & SCIENCE
9.8.10: CARL—EYE CENTER—DLAR FARM—INDEPENDENCE PARK
9.15.10: CCIF
9.22.10: FOSTER ST.—BIO SCI—FEL—FRENCH—PHYTOTRON
9.29.10: DUKE NORTH/SOUTH—CIEMAS
10.6.10: GHRB—MSRB2
10.13.10: VIVARIUM—MSRB1
10.20.10: LEMUR CENTER—ECOTOX

If you have any questions about the upcoming site visits please contact Bill Wade at 668.6722 or w.wade@duke.edu

ABSL ANIMAL HOLDING IN DUKE LABORATORIES

During the 2006 AAALAC accreditation review, the Site Team expressed concern with holding ABSL 2 animals in research laboratories across campus. Subsequent to that accreditation process, the institution established a procedure to review and approve holding of ABSL 2 animals outside of core animal care facilities.

If you have need to work with ABSL2 animals, and have not received IACUC approval for holding those animals in your laboratory, please discontinue the practice until IACUC approval has been granted. The process for gaining IACUC approval is as follows:

Step 1: Submit a ‘SECTION T’ protocol appendix (available on the animal program web site at http://vetmed.duhs.duke.edu/index_of_new_protocol.htm). The IACUC will review the scientific justification for housing ABSL2 animals in the laboratory. Once scientific need is established, the process moves to STEP 2.

Step 2: Assessments will be conducted by OESO, Engineering and Operations, IACUC and DLAR (this assessment is conducted as a single visit by individuals from each service) to confirm the minimums required for animal housing. This sub-committee will then approval or require modifications to secure approval of the housing space.

PI Managed Housing are defined as areas were animals are maintained in the lab area for greater than 11 hours and 59 minutes. PI Managed Housing requires:

- Daily documentation of animal condition/care
- Adequate air flow/temp/humidity/light/heat/cooling
- Clear assigned responsibility for animal care
- SOPs for care
- Disaster plans & contact points (just in case)

Please contact the Office of Animal Welfare Assurance at 668.6720 with questions.
From a Mouse Without the Use of Restrainting Devices or Anesthesia

Refinement of Saphenous Vein Blood Collection

Department of Comparative Medicine, Oregon Health & Science University, Portland, Oregon, USA

Drew (bee) Home, CVT, LATG; Kim Sanders, DVM, Dipl. ACT; and Michael Campbell, LATG