



ANIMAL TRACKS



A newsletter for the Duke research community

July 2006

<http://www.duhs.duke.edu>

Why is Duke AAALAC Accredited?

Our society has many measures of quality, from the Underwriter Laboratories safety seal to the Good Housekeeping seal of approval or simply the Gold Seal. In the scientific community, AAALAC accreditation shows that an institution is serious about setting, achieving, and maintaining high standards for animal care and use. With over 700 accredited institutions in 27 countries, AAALAC accreditation is recognized worldwide as evidence of quality animal care and compassionate animal use.

Accreditation promotes scientific validity. AAALAC engages scientists, managers, and administrators in an independent, rigorous assessment of the animal care program—an assessment that ultimately results in better research practices and outcomes through enhanced animal care.

Accreditation, a symbol of quality, can be used by Duke as a recruiting tool to attract the best and brightest of researchers. Talented professionals look for high quality programs, and seeing the accredited status of our campus, assures the candidate of our institutional commitment to progressive animal care and use in a strong research program.

Accreditation demonstrates accountability. Although animal based research can be a controversial issue, most people support biomedical research if it is conducted humanely. Accreditation demonstrates a willingness allow industry professional to assess our program practices and confirms for the public and funding agencies that Duke program is one that is above reproach, compassionate toward animals, and provides a strong and secure foundation for cutting edge research.

Accreditation is recommended by many funding agencies such as the American Heart Association, Cystic Fibrosis foundation, etc. Others, such as the NIH, DoD, NASA, VA, and NSF regard accreditation as evidence of a commitment to program excellence and fiduciary integrity.

The bottom line? *Accreditation with AAALAC shows the world we are serious about our commitment to humane animal care.* AAALAC will be visiting Duke later this fall for a routine accreditation site visit. Stay tuned for more news about this visit!

**Plan on attending a Brown Bag Seminar during August or September to learn how your laboratory can prepare for the accreditation site visit. (See page 4 for details).

James D. Reynolds, Ph.D. Appointed Duke IACUC Chair

James D. Reynolds, Ph.D. has been appointed Chairman of the Duke IACUC, succeeding E. Lee Tyrey, Ph.D. who retired at the end of June. Dr. Reynolds has been a member of the Duke faculty since 1996, with a primary appointment in the Department of Anesthesiology and a secondary appointment in the Department of Surgery. James received his Ph.D. in Pharmacology from Queen's University in Kingston, Ontario and completed a post-doctoral fellowship in the Department of Anesthesia at the University of Iowa.

Dr. Reynolds research interests center in common clinical manipulations such as anesthesia and surgery, along with assessing interventions directed towards increasing end-organ blood flow and oxygen delivery. His secondary research direction is understanding maternal-fetal response to non-medicinal drug exposure (e.g. alcohol, ecstasy) during pregnancy.

His research group conducts experiments on a wide range of species (rats, rabbits, guinea pigs, swine, and sheep) using a combination of physiologic monitoring and behavioral assessments. With respect to the Duke animal use program, James has been a member of the Duke IACUC since 1998 and he has served as vice-chair of the committee since February of 2001.

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Q & A

Q: Why does the IACUC require me to assess pain and distress before the experiment is performed?

A: It is the federally mandated responsibility of the IACUC to critically evaluate all research protocols for the potential to cause pain or distress and assess the steps that are to be taken to enhance animal well-being. The IACUC must assure that the principal investigator has considered alternatives to procedures that may cause more than momentary or slight pain or distress to the animal and has provided a written narrative description of the methods and sources used to determine that alternatives were not available. The NRC *Guide for the Care & Use of Laboratory Animals* states that the IACUC should ensure the protocol addresses:

- appropriate sedation, analgesia, and anesthesia;
- criteria for timely intervention, removal of animals from study, or euthanasia if painful or stressful outcomes are anticipated; and
- details of post-procedural care.

The protocol must provide adequate information for the IACUC to assess the potential animal pain and / or distress resulting from the study and the effectiveness of the pain and distress relieving agents proposed for use. Criteria for re-dosing the animal should also be established.

Q: It would seem that some experiments are more likely to cause pain or distress more than other type of experiments, I am not sure if my proposed procedures would be considered painful. What are some type of protocols where pain or distress would likely occur?

A: Examples of procedures which the NIH/NRC *Guide for the Care and use of Laboratory Animals* suggests may have the potential to cause pain or distress, include:

- physical restraint,
- survival surgeries,
- food or water restriction,
- death as an endpoint,
- noxious stimuli,
- skin or corneal irritancy testing,
- tumor burdens,
- Intracardiac blood sampling
- orbital sinus blood sampling,
- Tail snipping of weaned animals,
- abnormal environmental conditions.

Upcoming Events

August 3	SC deadline
August 7	New protocol deadline
August 7	SC deadline
August 17	SC meeting
August 24	IACUC meeting
August 28	SC deadline
September 7	SC meeting

SC= Significant change

Newest Member of the Faculty Support Team

Dr. Debbie Vanderford joins the Office of Animal Welfare Assurance for the purpose of improving animal protocol processing. Dr. Vanderford, a 1992 graduate of North Carolina State University College of Veterinary Medicine, has served on the Duke IACUC as a Community Representative for some time. She has worked as the attending veterinarian for the North Carolina Museum of Life and Science in Durham. Her skills as a veterinarian with interest in small mammals, reptiles, and aquatics and her experience with IACUC activities from the Community Representative perception provide a strong foundation that will be used to assist and facilitate review and approval of faculty animal use applications.

Debbie's desires are to facilitate compassionate and progressive animal care and use at Duke. She also desires to achieve board certification in laboratory animal medicine while employed at Duke. She has expressed a strong desire to remove barriers to research while assuring prevention of unnecessary pain and distress in research animals.

For her initial months of program support, Debbie will be focusing on veterinary review of new protocols and amendments. Faculty can reach Debbie at 919.668.0220 or she can be reached by email at debbie.vanderford@duke.edu.

NEED A ANESTHESIA EVACUATION SYSTEM?

Surgivet Company (888.745.6562) has a laboratory animal waste gas evacuation system available for purchase. This system (stock number V7300) connects on to any anesthesia cone, tube, of device and vacuums gas away from the animal to be exhausted into a fume hood or out of doors. It comes with connection hoses and a PVC adapter (incase you would wish to wall mount the device). With a push blower capable of moving waste gas down the exhaust tube 150 feet, this new product could resolve concerns with certain situations were animal anesthesia in human work spaces or laboratories occur. For more information, please visit the Surgivet Web Site at <http://www.surgivet.com>

While other companies may produce similar devices, this one is provided as an example of how researchers can meet air quality and safety requirements by OESO will achieving animal anesthesia needs.

Rat Physiological Data

Body temperature:	96.6-99.5°F
Heart rate (per minute)	250-600
Resp. rate (per minute)	66-114
Weight, adult male:	300-500 g
Weight, adult female	200-400 g
Weight, newborn:	5 g
Water consumption:	24-60 ml
Food consumption	15-30 g
Life span:	2.5-3.5 years
Sexual maturity:	65-110 days
Estrous cycle freq:	4-5 days
Duration of estrus:	13-15 hours
Gestation period:	20-22 days
Average litter size:	7-11
Begins eating dry food:	10-12 days
Age at weaning:	21 days
Breeding life:	1.5 years

Reference: Laboratory Animal Data: Quick Reference Guide for Researchers, AALAS)

NEW IACUC POLICY:

Managing Q Fever Risk in Ungulates



Ungulates (generally sheep and goats) are a potential source of *Coxiella burnetti* infection in humans leading to a disease known as Q fever. Q fever can be a serious disease in humans leading to both acute and chronic illness as well as death. Although many species can serve as a reservoir, pregnant sheep and goats represent the highest risk to

humans. Various measures can be taken to minimize the potential for human exposure to the *Coxiella burnetti* organism.

The research and DLAR staff are required to abide by this policy. The Occupational and Environmental Safety Office (OESO) will provide guidance in the assessment of risk and in the appropriateness of personal protective equipment. Employee Occupational Health and Wellness (OEHW) will provide health evaluations and risk assessments.

All research animals will be purchased from approved vendors that take measures to achieve a flock that is negative for Q fever and all newly arriving animals will be placed in quarantine.

To view the complete policy, as approved by the IACUC, visit the website at: http://vetmed.duhs.duke.edu/documents/iacuc/pdf/policy_on_managing_q_fever_in_ungulates.pdf

New Program References

At the June IACUC meeting, the Committee Policy Subcommittee recommended and the IACUC approved two new references for the Duke animal program. These are:

- Variable, Refinement, and Environmental Enrichment for Rodent and Rabbits Kept in Research Institutions, and
- Enrichment for Non-Human Primates

These reference resources are available on the Duke Animal program web site. Click 'References' to find the documents.

IACUC Semi-Annual Inspection 'Secrets' Revealed

Do you use an anesthetic vaporizer? Has it been calibrated? Common questions asked during an IACUC Semi-Annual Inspection. But the REAL question is, What is the right answer????

Anesthetic vaporizers must be calibrated either by manufacturers guidance (a copy of the manufacturers guidance must be available for the IACUC inspection team), or must be calibrated annually (if no manufacturers guidance is available).

If your laboratory has a vaporizer than may need calibrating, contact DLAR (681-9782) for a list of vendors that provide calibration services. Don't let you lab get caught in a 'gas!'

UPDATED WHISTLEBLOWER POLICY

Due to the recent change in IACUC leadership, the whistleblower policy is being updated to reflect the new IACUC chair. The policy will be distributed to all areas approved to house research animals for greater than 12 hours i.e. laboratories and animal facilities. The new version will be printed on green paper (similar to the background of this announcement) and distribution will begin in August. Please replace the previous version (printed on yellow paper with Dr. Tyrey listed as the chair) with the new version (printed on green paper with Dr. Reynolds as chair). Contact Sonia at sonia.doss@duke.edu for more information.



OAWA's Brown Bag Seminar

Wednesday, August 16th, 2006

Noon – 1 p.m.

Bryan Research Building: Room 103

**Ron Banks, DVM, Director of OAWA and
John Norton, DVM, PhD, Director of DLAR
will be presenting:**

“AAALAC is coming to Duke”

The Association for Assessment and Accreditation of Laboratory Animal Care International, AAALAC, will be coming to Duke in October to perform our triennial site visit. This site visit is necessary to maintain our accreditation. The following topics will be covered:

- What is AAALAC?
- Why is it important for Duke to be accredited?
- What does this mean for your research?

and most importantly...

- How to prepare your laboratory for the site visit.

The presentation will be on **Wednesday, August 16th, 2006 from noon to 1 p.m.** and will be repeated on the following dates:

- Tuesday, August 29th
- Wednesday, September 6th
- Monday, September 11th

It is important that as many people from the laboratories attend, so that we all have a better understanding of what the expectations are and why they are important to your research as well as the accreditation of the Institution.

Please visit AAALAC's website for more information: <http://www.aaalac.org/>

The session will be held in room **103 of the Bryan Research Building**, located at 421 Research Drive, on Duke University's West Campus.

Attendees are encouraged to bring a lunch.

OAWA will provide drinks and desserts.

Please plan on arriving prior to noon in order to get refreshments, sign in, and be seated.

For those who will be coming from off campus, driving directions and parking information can be found at the following link: <http://neuro.duke.edu/Links/map.htm>