OLAC

THE UNIVERSITY of TENNESSEE

Office of Laboratory Animal Care

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OLAC Services

Contributed by Dr. Joleen K. Adams

The Office of Laboratory Animal Care (OLAC) is focused on the health and well-being of all university maintained teaching and research animals. Our office endeavors to ensure quality care of all animal subjects thereby enhancing the university's teaching and research goals. OLAC offers a variety of services related to animal care and use to UT investigators.

The OLAC staff provides veterinary medical care to laboratory animals. Additionally, we provide assistance with animal model selection, anesthetic and surgical support, and guidance on selection of appropriate analgesic and euthanasia options. Our office also provides training in animal handling and restraint, sample collection methods, and newly evolving research techniques. Moreover, OLAC veterinary staff are always available for consultations on issues related to IACUC protocol development, animal care and husbandry, and management of adverse research events.

OLAC also conducts quarantine and rodent sentinel health programs to prevent introduction of diseases that could potentially compromise animal health and research results. OLAC approves procurement of non-agricultural animals from non-approved vendor sources and establishes an appropriate quarantine period. Rodent sentinel health monitoring is performed quarterly. In addition, OLAC provides yearly physical examinations and vaccinations for dogs and cats housed long-term. OLAC assesses quality con-

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Joleen K. Adams, DVM, moved to North Carolina when she was in 3rd grade and later graduated from high school in Greensboro, NC. She attended Bard College, a small liberal arts college, in Annandale-on-Hudson, NY. While there, Joleen found herself switching from a science major to pursue foreign languages. She graduated with a degree in French and Latin and planned on getting a masters degree in English to pursue a career in literary theory. Well into her first year of graduate study, Joleen decided that spending her life discussing literary feminist theory in academia was not her cup of tea. She decided to return to school to pursue her dream of becoming a veterinarian.

Joleen began her pre-vet classes at North Carolina Agricultural and Technical State University in Greensboro, NC, and finished them at Austin Peay State University in Clarksville, TN. She was accepted to the University of Tennessee College of Veterinary Medicine and graduated in 2006. In September of 2006 she joined the Office of Laboratory Animal Care as a staff veterinarian.

Patricia N. Coan, DVM, Ph.D., DACLAM, is the Director of the Office of Laboratory Animal Care (OLAC) and Attending Veterinarian for The University of Tennessee. Dr. Coan received her DVM from Auburn University. After a year of small animal practice, Dr. Coan began her residency in laboratory animal medicine at the University of Alabama at Birmingham (UAB) where she also earned her PhD in pathology. After graduating, Dr. Coan remained at UAB for 10 years as the Associate Director for the Animal Resources Program. During this time, Dr. Coan became a diplomate of the American College of Laboratory Animal Medicine. Dr. Coan moved to Louisiana in 2002 where she was the attending veterinarian for Tulane University's Health Sciences Center and Tulane University's Uptown Vivarium. After Hurricane Katrina, Dr. Coan carried out a successful animal evacuation of both animal facilities. In 2006, Dr. Coan was recruited to the University of Tennessee. Dr. Coan and her husband have two sons, Jason, 11, and James Patrick, 7. They all enjoy the outdoors, camping (Patti-reluctantly), Cub Scouts, baseball, and soccer. The Coan's also have Nu/nu—a spoiled Brittany spaniel who is one of the best bird dogs in the state of Tennessee.

IACUC is not OLAC is not DAF

Contributed by Dr. Patricia N. Coan

What is the IACUC and what is OLAC? How about the dedicated animal facilities (DAFs)? How do they work together?

What is the IACUC?

The IACUC is the Institutional Animal Care and Use Committee. If an institution uses animals in research, testing, or education, this committee is required by the Animal Welfare Act and Regulations and the Public Health Service Policy on Humane Care and Use of Animals. The IACUC is the legal regulatory committee governing animal care and use at a particular institution. The IACUC is appointed by the institution's CEO. By law, the IACUC must contain a laboratory animal veterinarian, a scientist, a non-scientist, and a non-affiliated member. The IACUC at UTK consists of 19 members. The IACUC website is http://iacuc.tennessee.edu.

What does the IACUC do?

By law, the IACUC must conduct program reviews and inspect all animal facilities and study areas twice a year. Additionally, the IACUC receives and reviews concerns about animal care and use. The IACUC also prepares reports and makes recommendations to the institutional official about the animal care and use program. Moreover, the IACUC reviews and approves animal use protocols. Animals can not be ordered unless the principal investigator (PI) has received an approval letter from the IACUC. The IACUC is authorized to suspend any animal activity that it feels is inappropriate.

What is the OLAC?

OLAC is the Office of Laboratory Animal Care. OLAC is a service entity of the university that assists animal researchers by providing veteri-

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USDA POLICY STATEMENT THREE:
What's in it for Me?

Contributed by Dr. William A. Hill

In the United States, the use of animals for research, teaching, and testing is heavily regulated. Domestic laws and regulations pertaining to research animal use include the Animal Welfare Act (AWA) and the accompanying Animal Welfare Regulations (AWRs) and the Health Research Extension Act of 1985 and the associated policy—the Public Health Service Policy on Humane Care and Use of Laboratory Animals (PHS Policy). Administered by the Office of Laboratory Animal Welfare, the Health Research Extension Act and the PHS Policy are applicable to all PHS supported activities involving live vertebrate animals.

In contrast, the AWA and AWRs are enforced by the United States Department of Agriculture and are applicable to any research facility, dealer, or exhibitor utilizing warm blooded animals with noted exceptions. Exceptions include: birds, rats of the genus *Rattus*, and mice of the genus *Mus*, bred for use in research; horses not used for research purposes; and other farm animals not used for production of food or fiber or for improving animal nutrition, breeding, management or production efficiency. In addition to the AWA and AWRs, the USDA has drafted twenty-nine policy statements that provide further clarity to the aforementioned regulations. To ensure compliance with the AWA, AWRs, and policy statements, the USDA conducts routine, unannounced site visits.

USDA Animal Care Resource Guide, Policy #3

While most investigators are familiar with regulations set forth in the AWA and AWRs, many are unaware of the mandates described in the USDA policy statements. Of the deficiencies noted during our last USDA site inspection, most related specifically to USDA Policy Statement Three—Veterinary Care. The purpose of this article is to highlight the relevant components of this policy statement in an effort to achieve improved compliance. The following bullet points are taken directly from the statement.

- **Expired Medical Materials**
  The use of expired medical materials such as drugs, fluids, or sutures on regulated animals is not considered to be acceptable veterinary practice and does not constitute adequate veterinary care. The facility must either dispose of all such (expired) materials or segregate them in an appropriately labeled, physically separate location from non-expired medical materials.

- **Pharmaceutical-Grade Compounds in Research**
  Investigators are expected to use pharmaceutical-grade medications whenever they are available. Non-pharmaceutical grade compounds should only be used in regulated animals after specific review and approval by the IACUC.

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William A. Hill, DVM, serves as the Assistant Director in the Office of Laboratory Animal Care. A native of North Carolina, William holds an undergraduate degree in Laboratory Animal Science from North Carolina Agricultural and Technical State University. In 2003, he received the Doctor of Veterinary Medicine degree from North Carolina State University. After veterinary school, Dr. Hill served a three-year residency in laboratory animal medicine at the University of Tennessee Health Science Center, Memphis, Tennessee. William joined the OLAC in June 2006; he is ready to assist UTK investigators in furthering their animal related research goals.

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trol by routinely performing environmental swabs and microbiological evaluations of each animal facility.

OLAC staff also provide special services tailored for specific investigator needs. Such services may involve performing animal manipulations or data collection. We routinely help in polyclonal antibody production and blood and tissue collection. These services are offered on a fee for service basis.

Our office also offers assistance in the interpretation and application of federal regulations and guidelines as well as UT IACUC established policies on laboratory animal use and care. While our office is not in charge of directly enforcing these regulations, we can help researchers and their staff apply these regulations to their projects.

OLAC is committed to assuring the health and well being of animals used here at UT, whether it is through the provision of veterinary care, investigator consultations, technical assistance, training, or implementation of colony health surveillance and maintenance. We are equally committed to upholding the highest standards of laboratory animal care and continued enhancement of our supportive role in research here at the University of Tennessee.

IACUC *(continued from page 1)*

nary medical care, technical assistance, and research collaboration. The OLAC focus is service oriented whereas the IACUC focuses on regulatory compliance. The OLAC website is http://www.vet.utk.edu/research/olac/.

What are the DAFs?

The DAFs are the main facilities where the animals are housed. OLAC provides veterinary oversight at these facilities but the facilities operate independently of each other. There are 4 DAFs on campus: Walters Life Sciences, Jesse Harris, The College of Veterinary Medicine's Laboratory Animal Facilities, and the DAF at the University of Tennessee Medical Center (UTMCK).

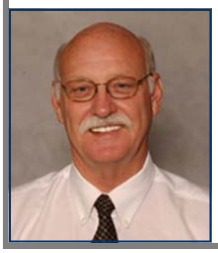
What do the DAF personnel do?

The managers and staff in the DAFs provide the daily husbandry and care needs for your animals. They feed and water the animals. They clean the cages and runs that house your animals. They notify veterinarians and investigators when the animals are ill or have problems. The managers and the staff in the DAFs ensure that the animals are housed in conditions that meet the Guide for the Care and Use of Laboratory Animals as well as the Animal Welfare Act and Regulations. This means ensuring that temperature, humidity, and air changes are appropriate as well as that cages, accessories, and runs are cleaned and sanitized at appropriate intervals.

How do they work together?

The DAF staff provide the daily care and maintenance of the animals housed in the DAFs. DAFs along with the OLAC ensure that the regulations are followed in the day to day care and use of animals. The DAF notifies the OLAC if there are animal health concerns that require veterinary assistance. The OLAC provides the veterinary medical care for the animals in addition to ensuring that the DAFs are providing quality service by maintaining colony health surveillance and environmental monitoring programs. The IACUC is the regulatory body of the animal care and use program at the University of Tennessee. The IACUC approves and monitors vertebrate animal use in all research, testing, and educational use at the university. The OLAC veterinarians are voting members of the IACUC. The IACUC, OLAC and DAFs work together to help maintain a high quality animal care and use program at the University of Tennessee.

Fred Hopkins, DVM, MS, DACT, is a graduate of the University of Georgia's College of Veterinary Medicine. After graduation, Fred completed an internship in Large Animal Medicine and Surgery at Oklahoma State University College of Veterinary Medicine. After 2 years in mixed animal veterinary practice, he completed a large animal medicine residency at Colorado State University College of Veterinary Medicine. He also received a Master of Science degree in Clinical Sciences from CSU. Fred is a diplomate of the American College of Theriogenologists. In 1979, he joined the faculty of the University of Tennessee College of Veterinary Medicine in the Department of Large Animal Clinical Sciences where he taught Theriogenology. Currently, he is Extension Veterinarian in the Department of Animal Science.



As a part of OLAC, Fred is responsible for the oversight of health and well-being of farm animals at the UT Agricultural Experiment Station's Research and Education Centers across the state.

Shelley Gentry, CPS, Accounting Specialist III for the Office of Laboratory Animal Care, has been with the College of Veterinary Medicine, for a year and a half. She began her UT career in October 1994 in the College of Arts and Sciences Dean's office where she was hired as a Senior Secretary for Dr. Lynn Champion in the Office of Academic Outreach. During her thirteen years with Dr. Champion, she was promoted four times eventually holding the title of Administrative Specialist II.

Shelley received the Certified Professional Secretary (CPS) certification in December 2000. She was elected to the UT Employee Relations Advisory Organization as an Employee Relations Representative for the College of Arts and Sciences from 2002-2006. And, most recently, Shelley was invited to be trained as a UT Staff Mediator through the Employee Relations Unit.

Shelley is originally from Jacksonville, Florida. Except for a short three year hiatus in Lakewood, CA, she has lived in Tennessee since 1978. Shelley and her husband have two children, Alisha, 16, and Ty, 15, and they share four dogs, numerous freshwater fish, a Chinese water dragon, and a ball python.

Christopher Hord, ALAT, is a Senior Clinical Specialist for the Office of Laboratory Animal Care. He began working for the Collage of Veterinary Medicine in March 1991 and was hired in OLAC in December 2005.

Christopher received the Assistant Laboratory Animal Technician (ALAT) certification and the Hills Nutritional Consultant certification in 1993.

Training: An Institutional Mandate

Contributed by Jane Czarra

As stated in the Animal Welfare Act, " It is the responsibility of the research facility to ensure that all scientists, research technicians, and other personnel involved in animal care, treatment, and use are qualified to perform their duties. This responsibility shall be fulfilled in part through the provision of training and instruction to those personnel."

OLAC can help! The OLAC staff are available for training in many aspects of animal care and use. Staff are available for individual and group training by appointment. In addition, OLAC holds wet labs dealing with animal handling and

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Jane Czarra, LAT, received a degree in Animal Science from the University of Maryland.

Jane's work experience includes Barrier Supervisor for Harlan Sprague Dawley at the Frederick Cancer Research and Development Center; research in in vivo model development, pre-clinical in vitro pharmacological testing for the NCI Drug Screening and Natural Products testing laboratory; and numerous research projects at the University of Tennessee.

Along the way, she has spent 10 years living and working with a registered Polled Hereford cow/calf operation in western Maryland. She has now moved on to chickens, ducks, apple trees and blueberries in Tennessee.

USDA POLICY (continued from page 2)

Contributor's Note: For example, Krazy-glue is not a pharmaceutical grade compound; instead, an appropriate pharmaceutical grade tissue glue, such as Nexaband ® or Dermabond ® should be used.

- **Pre- and Post procedural Care**
  All animal activity proposals involving surgery must provide specific details of pre- through post procedural care and relief of pain and distress. The specific details must be approved by the attending veterinarian or her designee. While an animal is under post-surgical care, the ownership of the animal is not to change. If the animal is taken to an off-site location, such as a farm for post-operative care, that location should be identified as a site of the research facility. An animal is not to be taken to an off-site location before it fully recovers from anesthesia unless justified in the animal activity proposal.

- **Health Records**
  Animal health records are meant to convey necessary information to all people involved in an animal's care. Health records must be current, legible, and include, at a minimum, the following information:

  * Identity of the animal.
  * Descriptions of any illness, injury, distress, and/or behavioral abnormalities and the resolution of any noted problem.
  * Dates, details, and results (if appropriate) of all medically-related observations, examinations, tests, and other such procedures.
  * Dates and other details of all treatments, including the name, dose, route, frequency, and duration of treatment with drugs or other medications.
  * Treatment plans should include a diagnosis and prognosis when appropriate. They must also detail the type, frequency, and duration of any treatment and the criteria and/or schedule for re-evaluation.

  Examples of procedures which should be adequately documented in health records include, but are not limited to vaccinations, fecal examinations, radiographs, surgeries, and necropsies. In addition, animal health records must be held for at least 1 year after the animal's disposition or death.

  Contributor's Note: For USDA covered species, research staff are responsible for maintaining animal health records describing all experimental manipulations including but not limited to surgery, post-surgical observations and treatments, substance administration, fluid/tissue collection, euthanasia, and necropsy. These records should be readily available and separate from any research records maintained by the laboratory. OLAC has generated a rodent surgery record that may be useful to rodent users.

- **Euthanasia**
  The method of euthanasia must be consistent with the current American Veterinary Medical Association (AVMA) Guidelines on Euthanasia, June 2007.

By mandate of Federal law, The University of Tennessee must comply with the above stated tenants. Any deviation is considered a program deficiency and jeopardizes the institution's registration with the United States Department of Agriculture. As an animal user, your help is solicited as we strive to maintain a quality animal care and use program.

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husbandry and biweekly technician training. You may contact the OLAC office at 974-5634 for more information.

UT also has an institutional membership with the American Association of Laboratory Animal Science (AALAS) Learning Library. AALAS is an organization devoted to education and exchange of information in the field of laboratory animal science. They have developed the Learning Library with a host of short courses including courses devoted to obtaining animal care technician certification. Please take time to login and look at what is available. Instructions for logging on as a UT member are found at both the OLAC website (http://www.vet.utk.edu/research/olac/) and the IACUC website (http://iacuc.tennessee.edu/).

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