

# PACUC Newsletter

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<http://www.purdue.edu/Research/ORR/animals/animals-main.shtml>

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## PACUC Leadership Change

Prof. Peter Dunn will be stepping down as PACUC (Purdue Animal Care and Use Committee) Chair effective July 1, 2002. Prof. Dunn will be returning to the Department of Entomology full-time to resume teaching and research responsibilities. PACUC and the Laboratory Animal Program (LAP) thank Prof. Dunn for his commitment over the past 12 months and wish him the very best.

Prof. Gary Carlson will become Interim Chair of PACUC effective July 1, 2002. Prof. Carlson is in the Department of Health Sciences at Purdue. He may be reached at 47206 or [pacuc@purdue.edu](mailto:pacuc@purdue.edu). Welcome aboard, Prof. Carlson.

## PACUC/LAP Orientation Program Schedule

The orientation program for new faculty, staff, and students, who will be using animals in research, teaching, and/or testing, will be held on the following dates:

- Tuesday, July 2—9:30-11:00 a.m., LILY, Rm. 1-125.
- Thursday, August 1—1:30-3:00 p.m., LILY, Rm. 1-125.
- Tuesday, September 3—1:30-3:00 p.m., STEW 218 A&B.

Attendance at one of these sessions is mandatory for personnel (faculty, staff, students) who initiated work with verte-

brate animals on or after June 3, 2002 (this was the last date the session was offered) or those who wish to initiate work with vertebrate animals in the future. Personnel will not be approved to work with animals until such time that they have attended one of these meetings. This program presented by staff of the Purdue Animal Care and Use Committee and the Laboratory Animal Program is designed to introduce new personnel to the Purdue system for maintaining regulatory compliance with federal and University guidelines and ensuring humane care and use of laboratory animals.

## SPECIAL POINTS OF INTEREST:

- *PACUC/LAP Orientation Program*
- *New PACUC Chairperson*
- *Qualification forms.*

Please register for one of these sessions via e-mail to Lisa Snider at [ldsnyder@purdue.edu](mailto:ldsnyder@purdue.edu).

## Updating Qualification Forms

**D**ocumentation of Personnel Qualifications. It is the strong belief of PACUC that personnel involved with animal care and use at Purdue University are highly qualified to perform their designated duties.

The skills and techniques employed for animal research and care at Purdue University are as diverse as the variety of species with which those abilities are used. To evaluate the qualifications of the personnel involved with animal care and use at Purdue, the PACUC must rely on the expertise of the Principal Investigators (PI) and Facility Supervisors.

All personnel, who have contact with animals that are used for research, teaching, or testing purposes, must fill out the Animal Care and Use Qualification Form. Each PI must review each form that is submitted by personnel who are listed on his/her protocol or amendment. The PI will certify that each person possesses the credentials that he or she has indicated on the form. Principal Investiga-

tor's must also complete a qualification form to document their own credentials. Each PI will certify the accuracy of his or her own qualifications.



All personnel involved with the care and housing of animals used under cover of approved or submitted protocols must also submit a completed Animal Care and Use Qualification Form to their facility supervisors for approval. Facility supervisors must also complete a qualification form to document their own credentials.

**As a reminder to those who have already submitted a qualification form to the PACUC office, please remember to update the form if you learn a new technique or work with new species. It is imperative that these forms remain current.**

For assistance with updating your form, please contact Sheila Light, LAP secretary, at 49163 or lap@purdue.edu.

## New Web Address for PACUC/LAP

**A** new web page has been developed (by the Office for Research Communication) for PACUC and the LAP. This web page now more closely resembles all the web pages under the Office of Research Administration.

The URL for the web site is listed below. As per the previous web site, all PACUC forms can be found at this site.

<http://www.purdue.edu/Research/ORR/animals/animals-main.shtml>

## Training and Continuing Education Opportunities

Daily Observation/Animal Health Monitoring – 11:30 a.m., July 24, 2002, B193  
Lynn

**D**aily observation of ALL animals used in teaching, research and testing at Purdue as well as reporting of abnormal animals to the Laboratory Animal Program is mandated by the USDA and PHS. What types of things should you be



observing; how do you recognize an abnormal animal; how to you go about reporting an abnormal animal to the LAP? These topics and more will be covered in this seminar. This is a “must” for new animal caretaking staff and researchers who will be monitoring their animals for health related abnormalities.

## Humane Endpoints for Genetically Engineered Animal Models

Development of transgenic animals has mushroomed in the past decade and this has greatly advanced our understanding of the molecular basis of physiologic processes, increased our ability to recognize and treat disease and increase animal productivity. The goal in agricultural research is to produce a normal animal with superior qualities, whereas in biomedical research it is often to produce an animal that mimics abnormalities seen in various disease states. In either instance, the incorporation of variable amounts of heterologous DNA into a variable number of insertion sites, over-expression of a gene or knocking out the function of a gene may affect other body systems in unexpected ways. The Animal Welfare Act and the Public Health Service mandate that "procedures involving animals will avoid or minimize discomfort, distress and pain to the animals" and criteria and a process for timely intervention, removal of animals from a study or euthanasia should be in place if painful or stressful outcomes are anticipated.

Establishing humane endpoints for euthanasia for genetic engineering studies can present challenges. If the genetically engineered animals have already been well studied, the investigator may be able to reliably predict untoward effects and plan for timely intervention if pain or distress would be experienced. New genetic alterations, however, may affect a variety of body systems in an unpredictable manner. In addition, transfer of the gene of interest into a different background strain of animal may

also result in a very different outcome when compared to expression in the original line. Continued surveillance of the transgenic animals for changes in reproductivity, increases in neonatal death, or development of other health or structural problems as the animals age, is necessary to fully characterize a new phenotype and be able to predict development of debilitating conditions. Once a debilitating condition is identified, it is possible to construct endpoints such that the study is terminated prior to the animal experiencing undue pain and suffering.

New submissions, annual reviews and triennial re-submissions of transgenic protocols should address unexpected adverse outcomes, as well as increases in morbidity or mortality in the transgenic line and detail a plan for intervention, or euthanasia to prevent pain and suffering in transgenic animals. If animals with debilitating phenotypes must be maintained in order to fully assess the phenotype, this should be fully justified in the protocol. If there are questions regarding how to best address these issues, don't hesitate to call the veterinary staff at the Laboratory Animal Program, 494-9163 for advice.

Synopsis -- *ILAR Journal*, Vol. 41(2): 94-98, 2000.  
Judith N. Nielsen

## Occupational Health and Safety in the Care and Use of Research and Teaching Animals

In the July 2001 PACUC Newsletter, it was stated that in an attempt to keep personnel informed regarding occupational health and safety issues, over the next several months, the PACUC Newsletter would include information in this area. The July 2001 Newsletter provided general information regarding Purdue University's Occupational Health Program for Individuals with Animal Contact, including how to enroll in the program and available resources regarding the risks associated with the use of animals.

The March 2002 Newsletter provided information regarding Allergies Associated with Animal Handling and available resources regarding this specific risk.

If you missed this information, please be sure to seek out a copy of the Newsletters to become informed of the program and issues. Should you have any questions in regards to animal associated allergies, animal associated risk, or have any questions regarding the Purdue University Occupational Health Program, please contact the Laboratory Animal Program office at 49163. (cont. on page 4)

Purdue University  
Laboratory Animal Program  
Purdue Animal Care and Use Committee  
1071 Veterinary Animal Holding Facility  
West Lafayette, IN 47907-1071

Phone: 765-494-9163  
Fax: 765-496-2415

<http://www.purdue.edu/Research/ORA/animals/animals-main.shtml>

## Occupational Health and Safety cont...

ZOONOTIC DISEASES are diseases caused by infectious agents that can be transmitted between (or are shared by) animals and humans. While there are more than 200 infectious diseases of animals capable of being transmitted to humans, the transmission of zoonotic disease in the laboratory animal environment is fairly uncommon. The use of quality animals of a defined health status plays a major role in reducing the risk of zoonotic disease transmission.

Zoonotic diseases may be transferred to humans by several routes. In an animal use setting, animal contact, either direct (animal bites, scratches, contact with skin or fur), indirect or via droplet exposure are common means of exposure. All individuals with animal contact share the responsibility for protecting one's health. Good personal hygiene (e.g., hand washing and wearing protective clothing) affords a critical barrier to the transmission of zoonoses. Training in proper methods of animal handling and restraint aids in minimizing exposure via bites and scratches.

Two resources are available to help give you information you need to be informed:

- A Risk Assessment Tool, provided by U.C. Davis can be used to lead you to a series of information sheets about spe-

cies specific common risks.

This information is located at:  
<http://ehs.ucdavis.edu/animal/risk/index.htm>

- A Zoonotic Diseases Tutorial, made available by Dr. Christopher W. Olsen, Department of Pathobiological Sciences, School of Veterinary Medicine, University of Wisconsin-Madison, can be accessed at <http://www.vetmed.wisc.edu/pbs/zoonoses/titlepg.html#anchor287736>