

## SWOT Analysis of the Animal Care and Use Program at the University of Kentucky

**Statement of the Problem:** *Animal use is an increasingly important facet of the research endeavors at the University of Kentucky. The increased use of research animals strains both the husbandry and regulatory systems that supports these research programs. This SWOT analysis seeks to reduce this strain by identifying potential areas for improvement.*

**Overview:** Animals are used in research projects at three different University Colleges: Agriculture (COA), Arts and Sciences (CAS), and Medicine (COM). The animal care and use program at the University of Kentucky has three main components: the Department of Laboratory Animal Resources (DLAR), the care programs maintained by the individual departments of the COA and the Institutional Animal Care and Use Committee (IACUC). The DLAR is responsible for veterinary care and animal husbandry for COM and CAS. The IACUC is responsible for oversight of the entire University program so that it meets the federally-mandated standards laid out in the Animal Welfare Act Regulations, USDA policy, and Public Health Service (PHS) policy. The Attending Veterinarian is a federally-mandated position charged with “providing adequate veterinary care” to all animals used for animal research at the University. At UK, this person is also the Director of DLAR. The IACUC Chair is a faculty member, approved and appointed by the Vice President of Research who serves as the Institutional Official (IO) at UK.

The DLAR is responsible for maintaining animal care in 10 different facilities with an approximate daily census of 23,000 animals. There is a staff of 56 with 4 veterinarians, three of whom are board certified in laboratory animal care. The approximate yearly budget of \$5 million is supported by animal care charges to the investigators and by a subsidy from the Vice President of Research’s office.

The COA has a number of different animal care programs that are run through individual departments, e.g. Veterinary Science and Animal and Food Sciences. Each unit manages its own veterinary care and animal husbandry programs.

The IACUC, in consultation with the IO, who has final authority, is responsible for interpretation and enforcement of federal animal care regulations as outlined above. The committee oversees the DLAR and approximately 450 research projects that use animals. The 15 members of the committee are largely volunteers from the faculty and the community. These individuals review and help revise animal use protocols, inspect animal-use facilities (semi-annually) and discuss and recommend policy to the IO. The IACUC is advised by a Veterinarian from ORI who acts as the IACUC’s executive secretary. A professional staff of 3 from the Office of Research Integrity (ORI) assists the IACUC in processing animal use protocols and performing continuing protocol review to ongoing animal research projects. The committee has a federally-mandated responsibility to investigate all reports of animal care and use activities that are not approved or in keeping with regulations. Once investigated, the committee must approve the course of action required to rectify any such deficiencies.

### Strengths of the Program:

- 3 Board Certified DVMs in DLAR
- New BioPharm building to house animals
- Grants to remodel the Sanders Brown Animal Facility and for new caging systems
- Quality DLAR Husbandry Staff
- Cost of animal care has been kept stable for several years
- Active IACUC with engaged and knowledgeable members who care about the program
- The online animal ordering and billing system functions very efficiently
- All facilities managed by DLAR are accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International
- Investigators can voice their concerns regarding animal care/use and regulatory issues to the IACUC at any time, via communication with the chair

### Weaknesses of the Program:

- The online system for submitting animal use protocols to the IACUC is difficult to use
- Interactions between the PIs and the staffs of DLAR and IACUC are often adversarial
- Animal care and use standards are not uniformly followed across the entire University
- Some of the animal care facilities are in need of renovation/replacement (e.g., Kastle Hall, Multi-Disciplinary Research Lab No 3 (MDR#3))
- Animal use protocol approval can be a lengthy process with numerous revisions required

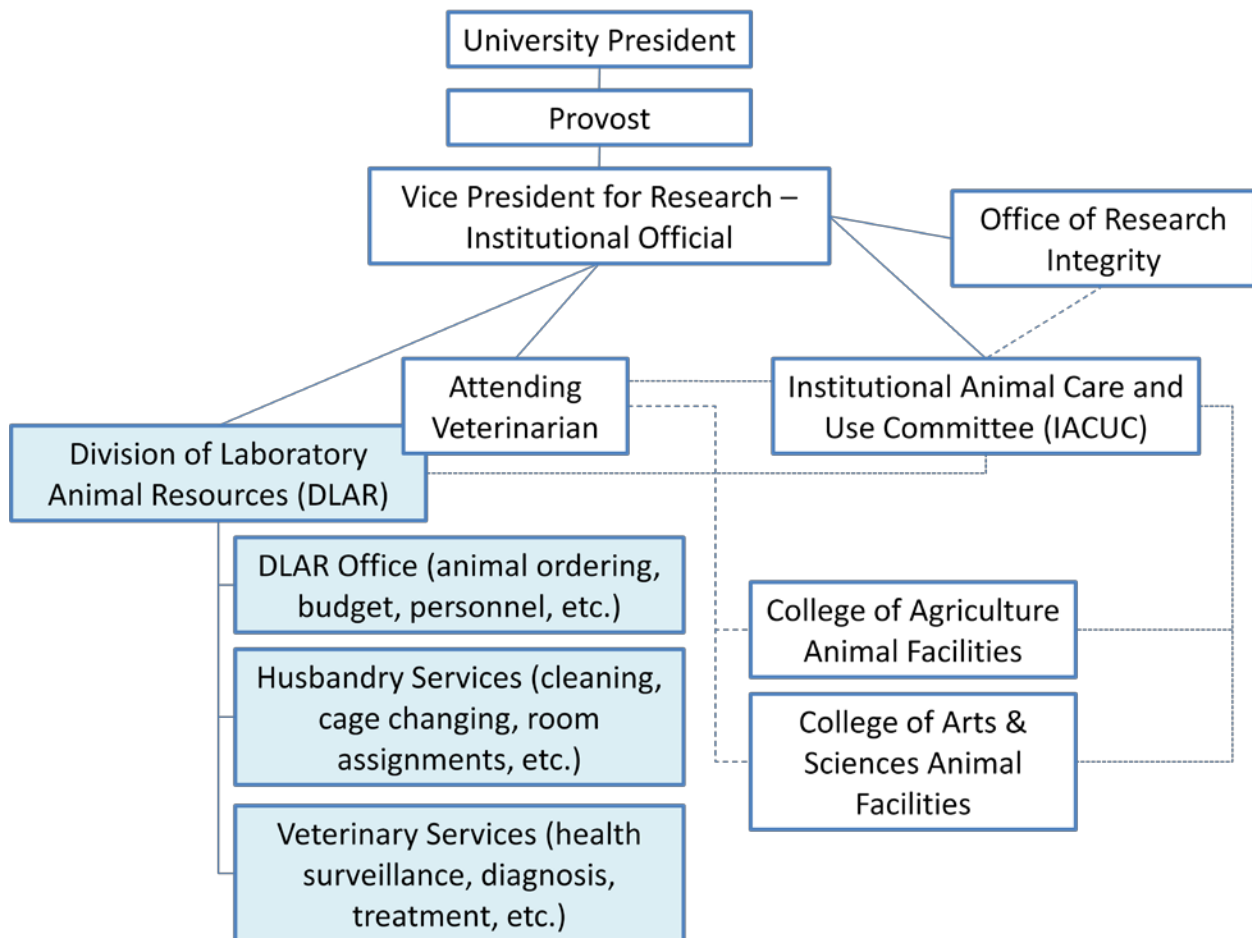
- University-wide lack of understanding about the different roles of IACUC and DLAR
- No overarching animal care program for the entire campus: COM and CAS are both covered under DLAR. Animal care in the COA is managed by individual departments
- COA is not accredited by AAALAC

**Opportunities for the Program:**

- Educational programs for PIs and staff (e.g., required continuing education, Blackboard programs, hands-on classes)
- Better communication between PIs and staffs of DLAR and IACUC (e.g., IACUC/DLAR presentations made to departments and research interest groups)
- Develop “Good Laboratory Practice” (GLP) programs for animal care to enable researchers to apply to a broader range of funding sources
- Institute a systematic program for noncompliance investigations and resolutions to standardize the process

**Threats to the Program:**

- Lack of sufficient veterinary oversight in certain COA programs
- Decreasing subsidy to the DLAR
- Cage costs paid to DLAR by COM and CAS investigators are being used to subsidize veterinary services for COA and to support the Attending Veterinarian
- Recent resignation of the IACUC’s Executive Secretary and uncertainty about how the position will be filled
- Adversarial interactions between PIs and staffs of DLAR and IACUC
- Investigator resistance to improvements in animal care practices



**Fig. 1:** Reporting Structure of the Animal Care and Use Program at the University of Kentucky