Policy on Approved Animal Numbers

This document establishes the policy of the IACUC regarding the number of animals approved for use in research, education, and testing and the definition of animal as it relates to regulatory oversight at the University of Kentucky. Specific research requirements that deviate from this document must receive IACUC approval prior to initiating.

Policy

The IACUC has determined that animal use up to 110% of the number approved by the IACUC rounded up to the nearest whole number is acceptable. Animal use exceeding the maximum approved number is considered the performance of an activity not approved by the IACUC, is a violation of the approved animal use protocol, and may be reportable to the Office of Laboratory Animal Welfare.

The number of animals to be used must be appropriately justified. Further, the number of animals used must be the minimum required to meet the objectives of the work. In this regard, experiments should not unnecessarily duplicate previous work. Investigators should recognize that replicates of experiments are a form of duplication. In contrast, the overall calculation of animal numbers should be appropriately powered, such that the group sizes are likely to detect a statistically significant difference in the variable of interest.

As part of responsible care and use of animals in research, the National Institutes of Health/Office of Laboratory Animal Welfare (NIH/OLAW) has stated an expectation that the number of animals used in support of research be tracked, including those produced in excess of the number or type needed. This means that animals euthanized before weaning must also be counted and subtracted from approved animal numbers in the IACUC protocol.

The IACUC also realizes that commercial animal suppliers (rodents, amphibians, fish, etc.) frequently ship animals additional to those ordered in anticipation of potential health issues related to the shipment. Investigators frequently wish to use these animals in their animal activity rather than have the animals euthanized or transferred to other protocols. These additional animals, if used by the investigator, must be accounted and tracked as animal use on the protocol in spite of the fact that they were not intentionally ordered by the investigator.

Definition of Animal

Animal – The term animal, for the purpose of IACUC oversight at the University of Kentucky, shall include all independent live vertebrate members of the Phylum Chordata, Class Vertebrata (all vertebrates) used in research, education, or testing. The determination of when a developing embryonic or neonatal animal is considered an independent live vertebrate is largely dependent upon the class of the animal. Neonatal

mammals are considered animals for the purpose of IACUC oversight from the time of live birth, avians when they reach 85% of their required incubation (e.g. 18 days for chickens, 15 days for Japanese quail, 24 days for ducks and turkeys, etc.), and from the time of hatching for reptiles, amphibians, and fish. Any use of an animal in research, education, or testing at the University of Kentucky requires IACUC review and approval.

Additional Definitions for Policy 101 Approved Animal Numbers

References

- 1. U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training.
- 2. **Institute of Laboratory Animal Resources (U.S.).** 2011. Guide for the Care and Use of Laboratory Animals. Washington, D.C.: National Academy Press.
- 3. National Institutes of Health (U.S.). Office of Laboratory Animal Welfare., United States. Public Health Service. 2015. Public Health Service policy on humane care and use of laboratory animals. Bethesda, MD (6705 Rockledge Dr., Bethesda 20892-7982): Office of Laboratory Animal Welfare, National Institutes of Health, Dept. of Health and Human Services.
- 4. **Potkay S, Garnett NL, Miller JG, Pond CL, Doyle DJ.** 1995. Frequently Asked Questions about the Public Health Service Policy on Humane Care and Use of Laboratory Animals. Lab Anim 24:24-26.
- 5. **Potkay S, Garnett NL, Miller JG, Pond CL, Doyle DJ.** 1997. Frequently asked questions about the public health service policy on humane care and use of laboratory animals. Contemporary Topics in Laboratory Animal Science 36:47-50.
- 6. **Animal and Plant Health Inspection Service.** 2016. Policy #17: Regulation of Agricultural Animals. In: Animal Care Policy Manual.
- 7. **American Society of Animal Science.** 2010. Guide for the care and use of agricultural animals in research and teaching Champaign, II.: FASS, Federation of Animal Science Societies.
- 8. United States Department of Agriculture., Animal and Plant Health Inspection Service. 2017. Animal Welfare Act and animal welfare regulations. Washington, D.C.: U.S. Dept. of Agriculture, Animal and Plant Health Inspection Service.

Approved and Adopted by the IACUC: September 21, 2011

> Last Revised: May 17, 2023