UH IACUC Policy 21.0

Vivarium Rodent Count Requirements for IACUC Protocols
Policy and Standard Operating Procedure

I.   Purpose and Scope:

        This document shall serve as procedures and guidelines to support management efforts for the accounting of animal numbers of those species of vertebrate animal subjects under the husbandry and care oversight of the Laboratory Animal Service (LAS). This policy is consistent with expected accreditation and modern industry[1] standards and federal[2,3] guidelines and policies established for the care and use of vertebrate animal subjects, **in particular laboratory rodents**.

        This procedure and policy is complimentary to and should be used in conjunction with the LAS Cage Card Management Requirements Policy and Guidelines to ensure monitoring and accurate accounting of the total use of vertebrate animal subjects under the husbandry and care oversight of Laboratory Animal Service.

II.   Protocol Animal Counts Management:

        LAS will account for the number of animals available on protocols using this criterion:

- Animal orders placed through LAS:

    - The number of animals ordered will be subtracted from the protocol animal count. However, if the animals are <u>not</u> used in the research and are transferred to another protocol, the count will be adjusted.

- Animal transfers between protocols:

    - When animals are transferred from one protocol to another protocol, the number of animals transferred will subtracted from each protocol.

- Offspring born to a breeding protocol:

LAS will count litters born to a protocol and use an **average of 6 pups per litter**. The offspring will be subtracted from the protocol animal count, regardless of whether the offspring will be use in study or not. If the offspring are transferred to another protocol, the protocol count will not be adjusted because the count is removed from the breeding protocol.

III.   Pain and Distress Category Assignments:

        Pursuant to these aforementioned expectations, offspring are required to be assigned to the appropriate Pain and Distress Category when submitting a breeding protocol to the IACUC for review and consideration for approval:

- Estimate offspring anticipated to be born on a breeding protocol. Offspring are required to be assigned to the appropriate pain categories. **[LAS recommends an estimate of 6 pups per litter. This is the average based on LAS PI survey responses.]**

- Offspring which <u>will</u> <u>not</u> be used in the experiment or genotyped resulting in euthanasia. Assign to Pain and Distress Category B.

- Offspring genotyped but <u>do not</u> meet the genotype requirements. Assigned to Pain and Distress Category C.

- Offspring which meet the genotype requirements; therefore, will be used for the study. Assign to appropriate Pain and Distress Categories C, D, and/or E based on actual animal manipulations.

IV.   Pain and Distress Category Definitions[4]:

- B – Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.

- C – Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain relieving drugs.

- D – Number of animals upon which experiments, teaching research surgery, or testes were conducting involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.

- E – Number of animals upon which teaching, experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests.

V.   Confirmation of Animal Use:

- To confirm the total number of animals used on a protocol, it is recommended that the principal investigator contact LAS prior to the submission of the IACUC annual protocol renewal. Using the aforementioned accounting procedures, LAS will have a fairly accurate animal use estimate.

- The total number of animals used on each protocol will be placed into the correct pain categories using the information submitted by the principal investigator on the annual protocol renewal.

VI.   [i]References:

  [1]   Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC).

2   Office of Laboratory Animal Welfare (OLAW), NIH, IACUC Guidebook,
        Page 131.

3   Office of Laboratory Animal Welfare (OLAW), NIH,IACUC Guidebook,
        Pages 132-133.

4   USDA-APHIS, United States Department of Agriculture-Animal Plant
        Health Inspection Service, Animal Welfare Regulations (AWAR), Title 9
        Code of Federal Regulations (9 CFR), Chapter 1, Subchapter A, Parts 1,
        2, and 3.

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[i] Large numbers of animals may be required to maintain a breeding colony. The exact number of animals can only be approximated because it is impossible to predict in advance the exact number and sex of offspring. The estimated number of animals should clearly distinguish between:[j]

- *Breeders,*
- *Young that cannot be used in experiments because they are of the wrong genotype or sex, and,*
- *Animals that will be subject to experimental manipulations.[2]*

Determining which animals to include in the estimated number of animals on an animal protocol can be challenging to the investigator and the IACUC in the absence of IACUC-developed guidelines. The estimated number of animals that are kept for breeding purposes and not subject to any experimental manipulations should be part of the animal protocol.[2]

If a suckling animal will be subject to any manipulation, such as the thymectomy, toe clip or ear notch for identification, tail tip excision for genotyping, or behavioral tests, the estimated number of manipulated sucklings must be included in the number of animals used. If suckling animals will be euthanized at or prior to weaning because they are the wrong genotype or sex for the experiment, then they may be included as animals held or euthanized but not subject to experimental manipulations.[3]

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