

**INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE**  
**Policy #25**  
**ANIMAL ACCOUNTING**

In concurrence with  
TTUHSC El Paso Assurance #D19-01056  
and Federal Regulations and Guidelines

**Purpose**

“Reduce, Refine and Replace” is a central tenet guiding the ethical use of animals in research. Accordingly, all animals used in an IACUC-approved protocol must be justified and accounted for. The purpose of this policy is to define how animal numbers are justified and clarify how to count animals against the protocol census. This institutional veterinarian and LARC can provide additional guidance on methods to minimize animal waste through the use of good animal husbandry.

**Justification of animal numbers**

Every animal used for experimental purposes must be scientifically justified in an IACUC-approved protocol. For experimental protocols, this will typically reflect the minimum number of animals that are needed to accomplish the scientific aims of the study. Depending on the study, it may be appropriate to incorporate a power analysis, perform calculations of the number of animals required to achieve cell yields for *ex vivo* studies, or consider other principals relating to scientific rigor (for example, the experiment may be done three times to ensure repeatability).

For breeding protocols, the number of breeders will often be dictated by the number of progeny required for experiments, and the anticipated fecundity and reproductive life span of the strain.

**Counting adult animals**

In counting animals, the PI must include every adult male and female animal used in the protocol. Breeders should be counted as individual animals and not “breeding pairs”.

**Counting pups**

In a breeding colony, unweaned pups are not counted against the protocol census. At the time of weaning the pups must be assigned to an approved protocol, or euthanized. For IACUC protocols that include experiments on unweaned pups, these pups must be counted against the protocol census.

**Maintenance of strains**

There may occur periods of time when experimental protocols do not require a continued production of animals, yet the need for experimental animals will recur in the future. In cases where the strain is readily available from a commercial source, it may be most pragmatic to terminate breeding and purchase new animals at a later date. In cases where the strain is not readily available, the IACUC suggests that temporary measures are taken to minimize animal waste. This can be accomplished by reducing the number of active breeders in the colony, and periodically separating the male and female breeders, in order to produce fewer litters. Additionally, cryopreservation is a valuable technique to preserve strains that are not being actively used.

**Transferring animals between protocols**

If animals are transferred between protocols, they must be counted on both protocols and included in the Annual Status Report. Investigators should take this into account when justifying the required animal numbers for each protocol. Animals that have already undergone an experimental procedure, or have been used as breeders cannot subsequently be used for a second purpose unless this has

been specifically approved in the IACUC protocol.

### **Recordkeeping**

The PI is responsible for keeping a record of every animal used on their IACUC protocol. At a minimum, this record should include the species, age, gender, strain and disposition of the animals (for example, whether they were euthanized or transferred to another protocol). On the Annual status reports and 3-year renewal, the PI should list the number of animals used in the prior year. The sum of all animals used in the 3-year period should not exceed the total number approved on the IACUC protocol. Animal records should also be available for the IACUC inspection.

### **Related policies**

Investigators must comply with all other institutional policies at TTUHSC El Paso and Federal Guidelines. This list includes, but is not limited to, the following:

IACUC Policy 3: Breeding Colonies

LARC Mouse Housing Density and Breeding Schemes Policy

LARC Policy on Overcrowded Cages