
Purpose

The purpose of this document is to outline the procedures for changes in rodent strains on an Animal Use Protocol (AUP).

This procedure document categorizes rodent strains into 4 groups in order to simplify AUP modifications that include animal strains. The categories are based on: whether the strains are genetically modified (e.g. genetically modified organisms, transgenic, knock-out); their health status; and their housing and management needs. The procedure for changes in rodent strains or changes in numbers required is defined below for each category. Genetically modified animals are grouped separately to allow for differentiating these animals from non-genetically modified for purposes of accurate reporting of annual animal usage to the Canadian Council on Animal Care (CCAC) on the Animal Use Data Form (AUDF).

Animal Strain Categories

Group 1: Non-genetically modified animals with standard housing and management requirements.

For mice and rats and other laboratory rodents this covers only outbred / inbred strains. These rodents are normal healthy strains with known backgrounds, are immunologically competent and do not have special housing or management requirements. Examples of strains of mice in this category include: Balb/C; Swiss Webster; CD1; and C57BL/6. Examples of strains of rats include: Sprague-Dawley; Wistar; and Long Evans.

Any strain from this group can be interchanged / substituted for another strain in this group, using an AUP Modification Form which will be reviewed by Animal Care and Research Support (ACRS) staff.

Group 2: Non-genetically modified animals with special housing, handling and surveillance requirements.

For mice and rats and other laboratory rodents, this covers only outbred / inbred strains. These rodents may be immune compromised or immune deficient, special needs rodents or rodents prone to develop life threatening conditions. Examples include nude mice or SCID mice.

Each requested change in animal usage in this group requires the submission of an AUP Modification Form for AREB review and approval before the new animals can be ordered.

Group 3: Genetically modified animals with specific housing, handling and surveillance requirements.

For mice and rats and other laboratory rodents, strains in this group typically have elevated housing and management requirements. They may have some alteration to immune function that requires their being housed in sterile conditions and special care taken for manipulations (e.g., cages opened in a biosafety cabinet). An example would be knockout mice with genes of innate immunity targeted. For instance, mice with developing Alzheimer's, mice with breast cancer that develops around 14-16 weeks old, etc.

Each requested change in animal usage in this group requires the submission of an AUP Modification Form for AREB review and approval before the new animals can be ordered.

Group 4: New genetically modified animals for which the phenotype is not known.

New genetically modified strains requested for which there is not yet any phenotype history, where the animal might later develop health or animal welfare problems (e.g. severe arthritis, cancer), and will require additional monitoring, care and husbandry experience for several generations before their phenotype is defined. Once the phenotype is defined, these strains would likely be moved into either group 2 or 3 (as described above).

Each requested new animal usage in this group requires the submission of an AUP Modification Form for AREB review and approval before the new animals can be ordered.

Procedures

Exchange of Strains on Animal Use Protocols

When AUPs are submitted the proposed strains and number of animals requested must be identified.

Any request from a Principal Investigator (PI) to change a strain or numbers of animals within Group 1 can be processed by the ACRS Office with an AUP Modification Form, provided the number of animals requested does not exceed the total number of animals already approved on the AUP. This decision will be documented in the AUP file, the UACC database will be updated, and the PI and Facility Manager will be informed of the change.

An AUP Modification Form is required if the total number of animals requested exceeds the total currently listed / approved on the AUP.

Addition of New Strains on Animal Use Protocols

Any request from a PI to add a new strain that is within Group 1 (as defined above) can be processed by the ACRS Office with an AUP Modification Form. The PI must identify which strain

currently on the AUP will be reduced in number to ensure that the total number of animals approved on the AUP is not exceeded. This decision will be documented in the AUP file, the UACC database will be updated and the PI, Facility Manager and the UACC Animal Order Desk (AOD) will be informed of the change.

An AUP Modification Form is required if a new strain that is within Groups 2, 3 or 4 (as defined above) is requested to be added to a AUP.

If by addition of a new strain, the number of animals requested will exceed that which is currently approved on the AUP, then an AUP Modification Form is required before the changes can be applied to AUP.

The AOD, in consultation with the University Veterinarian or UACC Clinical Veterinarian, will determine the appropriate category to which any new strain will be assigned, if the animal is not already included within the UACC database.

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