

## **Laboratory Rodent Breeding Application Guidelines**

**Breeding applications must be clearly distinguishable from experimental applications.** This is because the ethical considerations for each application type differ:

Breeding applications need to request the number of breeding Animal Details to establish and maintain the colony, including stock animals for allocation to projects, and address the ethics and welfare issues related to breeding.

Experimental applications need to request the number of Animal Details to address specific research questions that are predicated on power calculations, or other evidence, and address the ethics and welfare issues related to the experimental procedures.

Where possible, a new breeding application and experimental application for the same project should be submitted together to be considered by the AEC simultaneously.

***This process will commence in ACES page 4.1, the “Project Classification”.***

***At Q 4.1.2 please select “Breeding/Breeding Colony”.***

***If an application is for breeding animals for maintenance of a strain or creation of a colony for allocation to an experiment at Q 4.1.5, please tick “Establishing or holding a breeding colony for purpose of animal production.”***

***If an application is for an experiment, tick “Animal breeding as part of an experiment or research project”. Please also ensure that “Research” is ticked at Q 4.1.2***

The sections below cover breeding colony applications for multiple or single projects and are integral to the research.

### **1. What constitutes a breeding colony application:**

3.2 > (2) Breeding / Breeding Colony > (b) Establishing or holding a breeding colony for purpose of animal production

- breeders and stock Animal Details for subsequent allocation to more than one research project
- ongoing maintenance of colony/colonies that will eventually supply more than one research project
- importation of animals to establish colony/colonies that will eventually support more than one research project e.g., from interstate or overseas
- creation of animal strains to establish colony/colonies that will eventually support more than one research project e.g., newly created CRISPR/Cas9 animals

Additional guidelines:

- the application must clearly state that it is a breeding colony application by including the words “breeding colony” in the title of the application

- responses in the application must pertain to the breeding of animals, not planned experiments e.g. The 3R's must relate to issues associated with breeding
- there must be no experimental procedures apart from those required to maintain the colony e.g., physical identification, genotyping
- apart from core breeding to maintain a stock strain, additional breeding must not occur without documented allocation to an approved experiment
- further amendments will be primarily to augment animal numbers and to add or remove certain strains of mice
- only the breeding animals are to be documented in 6a Animal Details and Flowchart, with numbers in both sections matching (see comments about pups below)

Pups and embryos in breeding colony applications:

- are not to be included in 6a Animal Details and Flowchart
- an estimate of all pups born, and embryos aged 10.5+ days generated (both those kept and those humanely killed as excess) needs to be included in 4.2 Animal Number Justification and it needs to be stated how excess animals will be humanely killed (plus scavenging availability)

## 2. What constitutes breeding as part of an experiment application:

3.2 > (2) Breeding / Breeding Colony > (b) Animal breeding as part of an experiment or research project

- Importation or creation of animals to breed for a single research project
- when substantial animal breeding will occur to generate sufficient numbers for a single experiment (as defined by the AEC or University Veterinarians)
- responses in the application must pertain to the breeding of animals, not planned experiments e.g. The 3R's must relate to issues associated with breeding
- as this breeding is for the purpose of a single project, breeding cannot commence until the experimental application has been approved by the AEC
- only the breeding animals should be documented in 6a Animal Details and Flowchart, with numbers in both sections matching (see comments about pups below)

Pups and embryos in breeding as part of an experiment applications:

- are not to be included in 6a Animal Details and Flowchart
- an estimate of all pups born, and embryos aged 10.5+ days generated (both those kept and those humanely killed as excess) needs to be included in 5b Animal Number Justification and it needs to be stated how excess animals will be humanely killed (plus scavenging availability)

3. What constitutes an experimental application that contains breeding:

- any breeding that cannot be clearly delineated from experimental work needs to be included in the experimental application
- any breeding directly related to the experimental work needs to be included in the experimental application e.g., time mating for embryo collection, or stud males
- if breeding is not substantial and is only for one experimental application (see above), it can be incorporated into that experimental application to reduce researcher and AEC workload (seek guidance from the AEC or University Veterinarians to help determine this)
- pups need to be included in 6a Animal Details and Flowchart if they will be part of the experiment, i.e., their use can be justified using a power calculation or other means
- embryos aged 10.5+ days need to be included in 6a Animal Details and Flowchart if they will be part of the experiment, i.e., their use can be justified using a power calculation or other means as per Code recommendations

Rodent offspring and embryos aged 10.5+ days in experimental applications that contain breeding:

- need to be included in 6a Animal Details and Flowchart if they will be used in an experiment
- an estimate of all pups born, and embryos aged 10.5+ days (both those kept and those humanely killed as excess) needs to be included in 5b Animal Number Justification and it needs to be stated how excess animals will be humanely killed (plus scavenging availability)

**Reporting of animals used for breeding or experimental applications in Annual Reports**

- all animals (including embryos aged 10.5+ days and pups) born, and used, must be accounted for in Annual Reports
- researchers need to ensure that animals are not double counted if they are used in more than one application (breeding then experiment, stud males etc.) and keep clear records of AEC project numbers that breeding animals are allocated to