

UNIVERSITY OF CANTERBURY

**APPLICATION FOR AMENDMENT TO APPROVED PROTOCOLS**

[Form revised November 2022 – V.1]

*This form is required for all proposed MINOR amendments to experimental work, capture, containment and obtrusive observational work on animals that has already been approved by the Animal Ethics Committee (AEC). New projects, major amendments, or substantial changes to previous applications must submit a full application.*

*Please do not submit multiple amendments concurrently; only one amendment can be considered at a time. Please do not submit an amendment application while your original application is still being considered.*

*Please submit this application along with your original application to use animals in research (or teaching) in which the proposed amendments have been inserted and highlighted. This is required so that the AEC is able to judge your proposed amendments in context with the previously approved protocols.*

*Applicants are reminded that the AEC is required to minimise the use of animals as well as reduce, avoid, or ameliorate the pain, suffering, and death of animals used in Teaching and Research at the University of Canterbury. Applicants are advised to refer to the Animal Welfare Act 1999 and Animal (Records and Statistics) Regulations 1999.*

*Please send a fully signed electronic copy of the completed form to the Secretary of the Animal Ethics Committee.*

**Initial AEC reference number for which this amendment is requested:**

**Title of application for which amendments requested:**

**Current date:**

**Date your approval first obtained**:

(Note that AEC can only approve an application and any amendments that follow for a maximum period of 3 years in total; you cannot apply for an amendment to extend your project beyond 3 years, but will need to resubmit a new full application)

 **Name(s) of applicant(s):**

 **Contact address:**

 **Phone:**

 **Email:**

**Signature of applicant(s):**

**Is this the first, second or third amendment you are requesting for this AEC approved reference number?** (Note: apart from minor amendments such as change of dates or addition of a new investigator, applicants requesting more than 3 amendments must submit a new full application)

**Please describe changes requested to approved protocols** (applicants are reminded that amendments to change procedures must be minor; applicants requesting major changes should submit a full application)**:**

1. **Are additional animals to be used?** If so, what is the number of additional animals to be manipulated, and what is the total number for the entire project (i.e., number previously approved plus the current number requested)?

1. **Describe the proposed changes to previously approved procedures.** Please describe changes to previously proposed procedures including changes in equipment, duration of experiments, changes in diet, changes in surgical procedures, etc. Please note that changes in the use of restricted drugs will require approval from the University Veterinarian. Use as much space as required. Number each procedure and list the previous and new impact grading in the first table in section e.

1. **Describe any new procedures requiring approval from the Animal Ethics Committee.** For each new procedure, include a description of what will happen to the animal and the time taken for the procedure. If appropriate, include a table giving the timeline for the procedure(s) to be experienced by the animals. For animals that are to be captured from the wild, please also include method of capture and transport (if required) in the list of procedures. If a Standard Operating Procedure (SOP) will be followed, provide the name of the SOP. Number each procedure and list the impact grading in the second table in section e.

1. **What is the justification for the changes proposed in parts a, b and c?** Please provide justification for changes to number of animals to be used as well as the scientific reasons for the proposed changes in protocols described in parts b and c:

1. **Describe the change in grading of suffering as a result of proposed change in procedure listed in section b above and the grading for new procedures listed in section c above.** List each procedure for which you are requesting changes in the table below and give both the previous grading and new grading, taking into account the effect of any anaesthetic, analgesic, euthanasia technique, or other strategy or practice that is applied or used, or any other step taken, to avoid or alleviate the stress or pain caused to the animal (add additional lines as needed). List the number of individuals that will be exposed to each procedure.

The grading scale is:

No impact **A** (a manipulation of no or virtually no impact)

Little impact **B** (a manipulation of minor impact and short duration)

Moderate impact **C** (a manipulation of minor impact and long duration or moderate impact and short duration)

High impact **D** (a manipulation of moderate impact and long duration or high impact and short duration)

Very high impact **E** (a manipulation of high impact and long duration)

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| --- | --- | --- | --- | --- |
| **Previously approved procedures (as listed in section b)** | **Previous number of individuals to be used** | **New number of individuals to be used** | **Previous impact grading** | **New impact****grading** |
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| **New/modified procedures (as listed in section c)** | **No. individuals** **to be used** | **Impact** **grading** |
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 **Comment on any changes in grading:**

 Taking into account the proposed changes above, including number of individuals, impact grading and new procedures, give your assessment of the cumulative impact grading of the procedures listed in sections b and c in the table below. List the number of individuals that will be exposed to each procedure.

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| --- | --- | --- |
| **Combination of procedures experienced by** **an animal**  | **Number of individuals** **to be used** | **Cumulative** **impact grading** |
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**Comment on the cumulative impact of multiple procedures experienced by an animal:**

**f) What are the endpoints for each of the modified and/or new procedures listed in the tables above?** All studies should have an endpoint, or a series of conditions (e.g. time an animal is subjected to a treatment) under which the animal will no longer be subjected to a protocol and you consider the procedure completed. As procedures do not always go to plan, please also outline for each procedure the conditions under which you will stop administering the treatment if the animal shows responses that were not expected (e.g., loss of consciousness, loss of B.A.R.).

**g)** E**xpected date of completion of amended project** (please justify any changes from the original completion date; a maximum of 3 years in total, including amendments):

The AEC cannot assess your amendment until you have provided your amended original application. **Have you attached your original application to use animals in research (or teaching) in which the proposed amendments have been inserted/deleted and highlighted**?

**Yes \_\_\_\_\_ No \_\_\_\_\_\_**

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# *Approval:*

Amendments Approved (Chair, Animal Ethics Committee):

Date:

Any Special conditions applying:

**Appendix: NAEAC Impact grades**

The National Animal Ethics Advisory Committee (NAEAC) requires the following grading scale. Please record the grade of each manipulation. Where an animal is used in more than one manipulation, please grade the animal by the cumulative impact of the proposed protocols. NAEAC examples by category are listed below.

**Grade A: No impact or virtually no impact**

Mental state: Field observations of grazing behaviour on farms, or benign handling of tame and trained animals that are familiar with all personnel and procedures and with the place where the procedures are conducted.

Food/water: Animals kept outdoors eating their usual food in appropriate amounts; grazing trials on treated pastures; offering supplements to naturally available food; provision of complete, balanced rations to meet all nutritional requirements of animals maintained indoors.

Environmental challenge: Exposure to ambient conditions that are within the thermoneutral range; reduced barometric pressure (or equivalent reductions in oxygen concentration) which do not cause increases in red blood cell production.

Disease/injury/functional impairment: Studies of healthy uninjured animals that are kept in physical conditions which do not themselves lead to injuries such as lameness or compression sores; studies to establish normal characteristics of healthy animals.

Behaviour: Studies of wild or undomesticated animals in their natural habitats; field studies of domesticated animals.

**Grade B: Little impact; Manipulations of minor impact and short duration**

Mental state: Experiments on completely anaesthetised animals that do not regain consciousness; simple venepuncture or venisection; injection of non-toxic substances; skin tests which cause low-level irritation without ulceration/erosion; feeding trained animals by orogastric tube; movement of free-range domesticated animals to unfamiliar housing; minor restrictions of water and/or feed intake beyond the normal period of satiation.

Food/water: Water priming for kidney function tests; short-term overall food intake restrictions or excesses that are within usual tolerance levels for the species; short-term changes in dietary composition that cause no clinical signs of deficiency or toxicity, but which would cause such symptoms in the longer term.

Environmental challenge: Exposure to levels of cold or heat that are outside the thermoneutral range, or barometric pressures (or equivalent reductions in oxygen concentration) that increase red blood cell production, but which remain within the capacity of the animals to adapt and do not lead to debility in the long term.

Disease/injury/functional impairment: Studies of vaccines using killed pathogens; tuberculosis tests; induction of mild fever without other debilitating effects; induction of subclinical parasitism; healing of minor superficial incisions, cuts or wounds; minor surgical and/or pharmacological modification of homeostatic capacity (for example, creation of non‐obstructive gut fistulae; splenectomy; endocrine gland removal with complete and permanent hormone replacement therapy); physical conditions which cause transient lameness of low intensity, mild compression sores or abrasions.

Behaviour: Mild and short‐term physical restraint; keeping free‐range domesticated animals in a yard; movement of free‐range domesticated livestock to unfamiliar housing; operant conditioning with positive reinforcement in barren laboratory environments; benign preference tests in unnatural surroundings.

**Grade C: Moderate impact; Manipulations of minor impact and long duration or moderate impact and short duration**

Mental state: Recovery from major surgeries like thoracotomy, orthopaedic procedures, hysterectomy or gall bladder removal with effective use of analgesics; surgical procedures on conscious animals but with the use of local anaesthesia and systemic analgesic; movement of excitable free‐range domesticated livestock to unfamiliar housing; short‐term capture, handling and restraint of wild or semi‐domesticated animals that exhibit marked flight responses; moderate restrictions of water and/or feed intake beyond the normal period of satiation.

Food/water: Simulation of usual overall intake restrictions often experienced by pregnant/lactating ruminants during cold winters or drought; dietary induction of milk fever in cattle; induction of mild deficiency or toxicity signs by feeding diets containing inadequate or excessive amounts of essential nutrients.

Environmental challenge: Short‐term exposure to severe extremes of cold or heat or barometric pressure (oxygen concentration) which would lead to collapse if prolonged.

Disease/injury/functional impairment: Studies involving the induction of clinical parasitism; induction of mild reversible infectious diarrhoea; moderate surgical and/or pharmacological modification to homeostatic capacity (for example, limited gut resection; endocrine gland removal with delayed or incomplete hormone replacement therapy); physical conditions that cause minor chronic lameness or other injuries; studies of the effects of infectious or toxic agents that cause rapid death without distress.

Behaviour: Medium‐term restrictions of instinctive behaviour; medium‐term holding of ruminants in a metabolism crate; long‐term restraint leading to the development of reversible stereotypies; changing social group composition.

**Grade D: High impact; manipulations of moderate impact and long duration or high impact and short duration**

Mental state: Recovery from major surgery under anaesthesia without the use of postoperative analgesics; marked social or environmental deprivation; longer term capture, handling, restraint or housing, without the use of tranquilisers, of wild or semidomesticated animals that exhibit marked flight responses.

Food/water: Dietary induction of advanced pregnancy toxaemia in sheep or ketosis in dairy cattle; dietary induction of advanced signs of nutrient deficiency or excess; severe deleterious effects of dietary toxins; severe restrictions of water and/or feed intake beyond the normal period of satiation.

Environmental challenge: Prolonged exposure to severe cold or heat or altered barometric pressure (oxygen concentration) that would lead to failure of thermoregulation and collapse, but the exposure is terminated just before those outcomes.

Disease/injury/functional impairment: Studies of severe facial eczema; induction of severe diarrhoea or severe infectious pneumonia; protracted or irreversible pharmacological modification of homeostatic capacity (for example, chemical induction of diabetes mellitus without replacement therapy); marked surgical modification of homeostatic capacity (for example, extensive gut resection; cutting of sensory or motor nerves serving large areas of the body from which no self‐mutilation injury results; precise lesioning of limited areas of the brain but with intervention before collapse); physical conditions that cause moderate chronic lameness or other injuries; studies of the effects of infectious and toxic agents that cause either a protracted death with minor distress or a rapid death with moderate distress.

Behaviour: Application of marked and repeated noxious stimuli from which escape is impossible; prolonged periods (several hours or more) of close physical restraint; marked alterations to the perceptual or motor functions of animals to test consequent behaviour.

**Grade E: Very high impact; manipulations of high impact and long duration**

Mental state: Conducting major surgeries without the use of anaesthesia on control animals in assessing efficacy of analgesics; testing the efficacy of analgesics in animals with severe induced pain.

Food/water: Experiments that cause animals to die from poisoning by toxins in the diet; protracted and severe restrictions on water and/or feed intake.

Environmental challenge: Purposeful exposure of conscious animals to lethal extremes of cold, heat or barometric pressure which duplicate naturally occurring conditions.

Disease/injury/functional impairment: Studies of methods for killing pest animals; cutting of sensory or motor nerves serving large areas of the body from which self‐mutilation injury results; evaluation of vaccines where death is the measure of failure to protect; studies of the effects of infectious or toxic agents which cause either a protracted death with marked distress or a rapid death with severe distress.

Behaviour: Application of marked and repeated extremely noxious stimuli from which escape is impossible; prolonged periods (several hours or more) of close physical restraint.