|  |  |
| --- | --- |
| PROTOCOL NUMBER: |       *(office use only)* |

**Brandon University Animal Care
New Research/Teaching Animal Use Protocol**

**APPLICATION**

Please save this file to your computer. Applications are required to complete **all** sections and submit electronically to the Research Ethics Officer at buacc@brandonu.ca.

Depending on the procedures proposed, additional Schedules may be required (see Section VIII). More detailed applications of the CCAC Category of Invasiveness are available on the BUACC website – [www.brandonu.ca/buacc](http://www.brandonu.ca/buacc).

All sections in this form will expand as necessary. As this is a locked form, spellcheck will not work. It is recommended that you prepare your responses to the questions below in another document for spellcheck purposes, then copy and paste the text into the appropriate answer field below. Questions about using the form should be directed to Shannon Downey, Administrative Officer to the Vice-President (Academic & Provost) and Research Ethics Officer, at (204) 727-9**712** or downeys@brandonu.ca.

All new research/teaching animal use protocols are subject to scientific merit/pedagogical merit review.

PROJECT TITLE

**For teaching protocols – please identify by course name and number.**

PROTOCOL DESIGNATION

[ ]  **Research Protocol**

[ ]  **Teaching Protocol**

**[ ]  Pilot Project**

***As per the BUACC Terms of Reference, Pilot Studies are encouraged when new approaches, methods or products are being tried, before approving new, large scale protocols. Pilot studies should be conducted with a very small number of animals (fewer than 10 animals) and within a short period of time.***

PRINCIPAL INVESTIGATOR

|  |  |
| --- | --- |
| **Name:***(include position/title)* |       |
| **Department:***(include mailing address if external to Brandon University)* |       |
| **Phone Number:** |       |
| **Email Address:** |       |

PERSONNEL

|  |  |  |
| --- | --- | --- |
| **Co-Investigator:** | **Name:***(include position/title)* |       |
| **Department:***(include mailing address if external to Brandon University)* |       |
| **Phone Number:** |       |
| **Email Address:** |       |
| **Co-Investigator:** | **Name:***(include position/title)* |       |
| **Department:***(include mailing address if external to Brandon University)* |       |
| **Phone Number:** |       |
| **Email Address:** |       |
| **Designated Emergency Contact(s):** | **Name:** |       |
| **Daytime Contact Phone Number:** |       |
| **After Hours ContactPhone Number:** |       |
| **Email Address:** |       |
| **Technical Staff:** | **Name:** |       |
| **Department:** |       |
| **Phone Number:** |       |
| **Email Address:** |       |
| **Students, Teaching or Research Assistants** | **Name:** |       |
| **Phone Number:** |       |
| **Email Address:** |       |

EDUCATION & TRAINING QUALIFICATIONS/EXPERIENCE

**Briefly describe the training and/or experience in relevant procedures for all personnel listed above.**

| **Name:** | **Qualifications/Experience****Briefly describe training and/or experience in relevant procedures** | **Course/Workshop in Animal Use****Indicate the date and location of certificate** |
| --- | --- | --- |
|       |       |       |
|       |       |       |
|       |       |       |

PROJECT DETAILS/CATEGORIZATION

1. **Proposed Start Date:**
2. **Proposed End Date:**

**NOTE:** *Projects that extend beyond one year require a protocol renewal for each subsequent year to a maximum of three renewals.*

1. **Funding:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Is this project currently funded?** | **[ ]  Yes****Funding Agency:**      **Title of Project on Grant Application:**      | **[ ]  No** |
|  | **Is funding being sought?** | **[ ]  Yes****Funding Agency:**       | **[ ]  No** |
|  | **Has this project been peer reviewed?** | **[ ]  Yes** | **[ ]  No****If no, please complete Appendix A** |
|  | *NOTE: If a research project has not been reviewed for scientific or pedagogical merit, peer review must be carried out before full approval of the protocol is granted.*  |

1. **This project is:** **[ ]  Acute [ ]  Chronic**
2. **Maximum CCAC Category of Invasiveness:**

**[ ]  B studies or experiments causing little or no discomfort or distress**

**[ ]  C studies or experiments involving minor stress or pain of short duration**

**[ ]  D studies or experiments involving moderate to severe distress or discomfort**

**[ ]  E procedures that involve severe pain at or above the pain toleration threshold of unanaesthetized, conscious animals (category E procedures are normally not acceptable)**

1. **CCAC Purpose of Animal Use (PAU):**

**[ ]  0 breeding colony**

**[ ]  1 studies of a fundamental nature in sciences relating to essential structure and function (e.g. Biology, Psychology, Biochemistry, Pharmacology, Physiology, etc.)**

**[ ]  2 studies for medical purposes, including veterinary medicine, that relate to human or animal disease or disorders**

**[ ]  3 studies for regulatory testing of procedures for the protection of humans, animals, or the environment**

**[ ]  4 studies for the development of products or appliances for human or veterinary medicine**

**[ ]  5 education and training of individuals in post-secondary institutions or facilities**

1. **Endpoint:** *defined as “the point at which an experimental animal’s pain and/or distress is terminated, minimized or reduced, by taking actions such as killing the animal humanely, terminating a painful procedure, or giving treatment to relieve pain and/or distress” (CCAC Guidelines on: Choosing an Appropriate Endpoint in Experiments using Animals for Research, Teaching and Testing).*
2. **Please identify the endpoint for this project:** *examples include, but are not limited to, illness (measurable clinical signs), signs of pain and distress, irregular behaviour, responses to external stimuli, change in eating/drinking habits, compromised motion, bleeding, or irregular breathing.*

1. **Please identify the basic endpoint responses for the above:**

[ ]  **Light Mediation:** Prescribed intervention is applied in an attempt to address the area of concern but the animal is not removed from the study group on a trial basis.

[ ]  **Moderate Mediation:** The animal is temporarily removed from the study to halt the escalation of pain or advancement of illness and eventually eliminate the cause of concern.

[ ]  **Heavy Mediation:** The animal is permanently removed from the study but remains under care with hopes to use the individual animal with a future purpose in mind provided concerns are fully remedied.

[ ]  **Euthanasia:** The animal is euthanized with the understanding that the concern had progressed to a point beyond intervention, remedy, and to a level causing significant distress to the animal.

**[ ]  Other – Please describe:**

1. **In terms of species-specific behaviour changes and physiological signs, what criteria will trigger the decision to remove an animal from the exercise or experiment, or to terminate the exercise or experiment?**

1. **What is the expected time course for the animals, from initial treatment to first signs of pain/distress, to the death of the animal, based on previous information with the specific model under study?**

1. **When are the effects to the animal expected to be most severe?**

1. **If the course of the disease and expected signs of the adverse effects are unknown, could an initial (pilot) study, under close observation by the Principal Investigator and/or Animal Facility staff, answer these questions?**

**[ ]  Yes [ ]  No**

1. **Has a checklist of observations, on which the endpoint will be based, been established? If yes, please submit with this application.**

**[ ]  Yes [ ]  No**

1. **Who will monitor the animals and keep records (identify all responsible)?**

1. **Identify a clear chain for reporting established observations.**

1. **What will be the frequency of animal observations…**

**During the course of the study:**

**During critical times for the animals:**

1. **What provisions have been made to deal with animals that show unexpected severe signs and symptoms?**

1. **For toxicological studies, have existing toxicological data been evaluated?**

**[ ]  Yes** **[ ]  No** **[ ]  Not Applicable**

ANIMAL INVOLVEMENT

1. **Complete the table below for each species of animal proposed for this project:** *(NOTE: animals that are used for research, teaching, and testing are to be housed in the Brandon University Animal Facility. If there is a need for alternative housing that exceeds 12 hours, please complete an “Alternative Animal Housing Request Form”. This is inclusive of animals being housed on-campus, but outside the Animal Facility)*

| **Species/Strain** | **Quantity** | **Sex** | **Age/Stage** | **Weight/Size** | **Experimental Area or Field Study**(Building & Room) |
| --- | --- | --- | --- | --- | --- |
|       |       |       |       |       |       |
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1. **Animals used for this project will be procured from:**

**[ ]  Laboratory Stocks**

**[ ]  Farm/Stockyard**

**[ ]  Wild Populations**

**[ ]  Other – Please specify:**

1. **If wild vertebrates are to be used in the project, are they rare or endangered?**

**[ ]  N/A**

**[ ]  Yes**

**[ ]  No**

1. **Are permits required?**

**[ ]  Yes**

**[ ]  No**

**If permits are required, have they been applied for?** **[ ]  Yes** **[ ]  No**

**If permits are required, have they been obtained?** **[ ]  Yes** **[ ]  No**

1. **If wild vertebrates are to be used, indicate method:**

**[ ]  Capture by**

**[ ]  Restrained by**

**[ ]  Transportation by**

**[ ]  Housing at**

DESCRIPTION OF THE PROJECT

1. **Lay Description – please note the importance of completing this section with language appropriate for a reader not familiar with the experimental procedure(s). Use clear and simple language, avoiding technical terminology. (Suggestion – “National Geographic” level of writing be used or media quality).**
	1. **What is the rationale for doing this study? (Expected response – 2 sentences)**

* 1. **What are the Primary Objectives for this study? (Expected response – 2-3 sentences)**

* 1. **What is the expected contribution to the knowledge or to the well-being of animals or humans? (Expected response – 2-3 sentences)**

* 1. **What key words can be used to describe this project (Please see Appendix B – Key Words from the *CCAC Interpretation Bulletin. 1-1: Animal Use Data Form)*.**

1. **Provide a concise summary of your project, including a description of the procedures to be used, the endpoints of those procedures, and how the procedures relate to the objectives of this study.**

JUSTIFICATION

1. **Explain why it is necessary to use animals in this study, and why alternatives would be inappropriate to meet your project or course objectives.**

1. **What is the rationale for using this particular species or animal model?**

1. **Will any mathematical models, computer simulations or *in vitro* preparations be used in lieu of animals in this project? If not, please explain why they would be inappropriate and/or cannot be developed.**

1. **Justify the numbers of animals needed per year for each species listed in this application. Include the number of treatment and control groups to be used, the number of animals per group, and the number of replicates to be conducted.**

1. **What provisions will be made to provide environmental enrichment for animals used in this study? If none will be made, justify not using them.**

1. **The CCAC advocates “Three R Principles” of REDUCTION of number of animals required, REFINEMENT of procedures so as to minimize the stress placed on animals; and REPLACEMENT of animals with alternatives whenever possible. Please explain how you have incorporated all three principles in designing this project.**

**Reduction:**

**Refinement:**

**Replacement:**

DISPOSITION OF ANIMALS

1. **Identify the disposition of the animals following this project:**

**[ ]  Retained (specify location):**

[ ]  **Sold/Donated to:**

**[ ]  Returned to Stock or Herd**

**[ ]  Returned to Wild**

**[ ]  Adopted – NOTE:** *if animals are to be adopted, an Animal Adoption Release & Waiver Form is required)*

**[ ]  Humanely Euthanized**

**Indicate the method of euthanasia and the person carrying out the procedure:**

**Please justify method of euthanasia:**

1. **Indicate any clinical conditions or behavioural changes expected or that could arise as a result of the proposed study or teaching exercise. (e.g. increased grooming or vocalizations, postural changes, anorexia, diarrhea, etc.)**

1. **Is normal veterinary care appropriate for this project?** **[ ]  Yes** **[ ]  No**

*If “No”, attach specific instructions on any veterinary indications/contradictions to be left on file with the Animal Health Technician should an emergency arise.*

**NOTE TO PRINCIPAL INVESTIGATOR: IN THE EVENT OF AN ANIMAL HEALTH EMERGENCY, IF CONTACT CANNOT BE MADE WITH THE LISTED INDIVIDUALS, THE DECISION OF THE INSTITUTIONAL CONSULTING VETERINARIAN ON WHETHER TO TREAT OR EUTHANIZE AN ANIMAL WILL BE FINAL. ENSURE THAT ARRANGEMENTS ARE IN PLACE TO PERMIT CONSULTATION ON A 24-HOUR BASIS.**

PROCEDURES

|  |  | **Yes** | **No** |
| --- | --- | --- | --- |
|  | Will these animals be used for teaching? | **[ ]** Complete and attachSchedule 1: Teaching/Display | [ ]  |
|  | Does this project involve minor procedures such as injection, blood collection, non-surgical catheterization, biopsies, etc.? | [ ] Complete and attachSchedule 2: Minor Procedures | [ ]  |
|  | Is this a wildlife field study, or does it involve the capture or release of animals into the wild? | [ ] Complete and attachSchedule 3: Field Study | [ ]  |
|  | Does this project involve the use of animals on non-university property? | [ ] Complete and attachSchedule 4: Alternative Animal Housing Request Form | [ ]  |
|  | Does this project involve environmental manipulation outside the normal range of adaption of the species being studied? | [ ] Complete and attachSchedule 5: Environmental Manipulation | [ ]  |
|  | Does this project involve the use of potential hazards to animals or humans? (e.g. chemicals, pathogens, radioisotopes, carcinogens) | [ ] Complete and attachSchedule 6: Potential Hazards | [ ]  |
|  | Does this project involve behavioural manipulation? | [ ] Complete and attachSchedule 7: Behavioural Experiments | [ ]  |
|  | Will conscious animals be restrained other than for examination, injection or other minor procedure? | [ ] Complete and attachSchedule 8: Restraint | [ ]  |
|  | Will there be distress, illness or pain as a result of any procedure you will be using other than short-term or surgical pain? | [ ] Complete and attachSchedule 9: Distress, Disease and Pain | [ ]  |
|  | Will surgical procedures be used? | [ ] Complete and attachSchedule 10: Surgery | [ ]  |
|  | Does this project involve feed/water/nutrient deprivation other than pre-surgical fasting? | [ ] Complete and attachSchedule 11: Feed/Water/Nutrient Deprivation | [ ]  |
|  | Does this project involve the use of transgenic, “knockout” or mutant animals? | [ ] Complete and attachSchedule 12: Genetically Modified Animals | [ ]  |

DECLARATION OF PRINCIPAL INVESTIGATOR:

By submitting this application, I agree/affirm:

1. **To conduct my research and ensure that animals used in this project are cared for in accordance with Brandon University Animal Care Committee (BUACC) policies and procedures, and the Canadian Council on Animal Care (CCAC) policies and guidelines.**
2. **To supervise all team members in the application of the procedures/experiments, and ensure that they are qualified and properly versed in the conduct of ethical research.**
3. **To ensure that techniques, facilities, and equipment to be used for this project conform to all applicable regulations and guidelines including: a) the Canadian Council on Animal Care (CCAC) policies and guidelines, and b) federal and local government regulations in Canada and/or the country in which this project is being conducted.**
4. **That alternative procedures were considered that do not involve the use of living animals.**
5. **That the minimum number of animals consistent with the objective of this project will be used.**
6. **That the most appropriate species and/or model for this project was carefully selected.**
7. **To submit any amendments or revisions to the research/teaching protocol to BUACC for review and approval. And that major changes as defined in the *Brandon University Animal Care Committee (BUACC) Terms of Reference* will require a new protocol submission to BUACC for review and approval.**
8. **To coordinate a Quality Assurance visit with the Animal Facility Manager and Animal Health Technician, to allow observation of one procedure in the protocol. (on-campus research)**
9. **To submit a completed Quality Assurance Report within seven (7) business days following the conclusion of the experiment(s). (field studies research only)**
10. **To submit a Renewal on an annual basis if the project continues beyond one year (to a maximum of three renewals).**
11. **To report the number of animals used in this project to the Research Ethics Officer when requested.**
12. **To keep copies of all approved protocols, revisions and amendments in an accessible file.**

APPENDIX A

This section must be completed for protocols that have not been peer reviewed for scientific or pedagogical merit.

1. **Please identify 5 key words to identify this research. This will be used for the purposes of identifying peer reviewers, if the need arises.**

1. **Please provide detailed background for the research to be conducted (including relevant references from literature).**

1. **Please provide justification for the research to be conducted (including relevant references from literature).**

1. **Please provide a complete reference list:**

APPENDIX B

*14*

KEYWORDS

General

• research, teaching, testing;

• regulatory (if the experiments are performed directly in relation to testing regulations in force in Canada and/or the US (FDA, EPA, etc.) and/or elsewhere), type of testing (e.g., cosmetic testing);

• field work, behavioral observation, environmental protection study, wildlife conservation;

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• development of techniques, study of the effectiveness of a product (drugs, others) or a method (spectroscopy, others);

• breeding, breeding colony, sentinel program;

• antibody production (monoclonal, polyclonal);

• pilot study;

• palatability test;

• digestibility test;

• reinforcement/motivation;

• staged behavioral encounters;

• primary cell culture, tissue/organ collection, graft, transplant;

• species, transgenic animal; and

• validation of non animal model (*in vitro* test, computational methods...).

Procedures

trapping/netting, marking/tagging, injection (intravenous, subcutaneous, intramuscular, intraperitoneal), blood sampling/testing (small volume), blood removal (large volume), gavaging, physical restraint, infection induction, whole body radiation, physical euthanasia, food deprivation, water deprivation, special diet, altered environ- mental exposure, physical restraint (duration).

Agents

Radioisotope administration, chemical exposure, infectious agents, immunogenic or inflammatory agents, Freund's complete adjuvant.

Surgery

major surgery, minor surgery, stereotaxic surgery, survival surgery, multiple surgeries, cannulation