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| Logo  Description automatically generated | **Animal Care Committee****Animal Use Protocol -** **Laboratory Animal Use****Confidential** | For Office Use OnlyProtocol # Click or tap here to enter text.Principle Investigator Click or tap here to enter text.Category of Invasiveness Click or tap here to enter text.Expiry Date Click or tap here to enter text.PAU Click or tap here to enter text. |

# LABORATORY PROTOCOLS HAVE AN APPROVAL PERIOD OF ONE (1) YEAR WITH THE POSSIBILITY OF ONE (1) RENEWAL FOR AN ADDITIONAL ONE (1) YEAR, CONDITIONAL UPON APPROVAL OF THE ANIMAL CARE COMMITTEE.

### **FOR MORE INFORMATION ON PROTOCOL RENEWALS, PLEASE CONTACT THE ANIMAL CARE COORDINATOR and visit the** [Research Ethics - Animals (msvu.ca)](https://www.msvu.ca/research-at-the-mount/research-ethics/animal-care/) website**.**

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| 1. **Project Information**

Title (including course number if applicable) Click or tap here to enter text.Note: If this is a new submission following the expiration of a previously approved protocol, please indicate the previous protocol number and title.Click or tap here to enter text.

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| **Purpose of Animal Use (please select):**[ ]  PAU 0: Breeding Colony/Stock[ ]  PAU 1: Fundamental Nature in Science[ ]  PAU 2: Medical Purposes that relate to Human or Animal Diseases or Disorders [ ]  PAU 3: Regulatory Testing of Products[ ]  PAU 4: Development of Products or Appliances for Human or Veterinary Medicine [ ]  PAU 5: Education or Training of Individuals in Post-Secondary InstitutionsFor more information, please consult Appendix D of the CCAC AUDF Instructions found at: [AUDF\_Instructions.pdf (ccac.ca)](https://www.ccac.ca/Documents/Assessment/AUDF_Instructions.pdf) | **Category of Invasiveness (please select):**[ ]  A. Experiments on most invertebrates or on live isolates[ ]  B. Experiments which cause little or no discomfort or stress [ ]  C. Experiments which cause minor stress or pain of short duration[ ]  D. Experiments which cause moderate to severe distress or discomfort[ ]  E. Procedures which cause severe pain near, at, or above the pain tolerance threshold of unanesthetized conscious animals For more information - [Categories\_of\_invasiveness.pdf (ccac.ca)](https://www.ccac.ca/Documents/Standards/Policies/Categories_of_invasiveness.pdf)  |

Proposed Start Date (please select): Click or tap here to enter text. OR [ ] ongoingExpected Date of Completion (please select): Click or tap here to enter text. OR [ ] ongoingType of protocol:[ ]  **Research** [ ] **Teaching** [ ] **Breeding****Note: All teaching protocols must be accompanied by the Teaching Protocol Appendix.** |
| 1. **Principal Investigator or Course Instructor**

Name Click or tap here to enter text.Department Click or tap here to enter text.Email Click or tap here to enter text.Laboratory Phone Click or tap here to enter text.Work Phone Click or tap here to enter text.Cell Phone Click or tap here to enter text.Emergency PhoneClick or tap here to enter text. |
| 1. **Funding**

[ ]  Internal [ ]  External[ ]  N/A Funding Agency/Source: Click or tap here to enter text.[ ] Funding Pending [ ] Funding Approved Grant Number (if applicable) Click or tap here to enter text.**Scientific Merit Review**Has this project been peer reviewed for scientific merit? [ ] Yes [ ] No For research protocols not funded by external agencies with peer review, an arm's length independent review for [scientific merit](https://ccac.ca/Documents/Standards/Policies/FAQ-Scientific_merit_and_ethical_review_of_animal-based_research.pdf) is required. Teaching protocols must undergo review for [pedagogical merit](https://ccac.ca/Documents/Standards/Policies/FAQ-Pedagogical_merit_of_live_animal-based_teaching.pdf). Once a protocol has been reviewed for merit and the review has been received by the Animal Care Coordinator, it will be considered by the Animal Care Committee.**Please ensure you allow at least two (2) weeks for the review process to be completed when submitting your protocol for consideration.** |
| 1. **Lay Summary**

(A) Using NON-SCIENTIFIC terminology, targeted at an 8th grade reading level audience, please summarize the primary objective(s) of the study:Click or tap here to enter text.(B) Using NON-SCIENTIFIC terminology, targeted at an 8th grade reading level audience, please summarize the benefit(s) expected from the study:Click or tap here to enter text.\*PILOT STUDIESMSVU encourages the use of pilot studies when new approaches, methods, or products are being tried. Pilot studies are an effective tool for determining humane endpoints, to perfect technique, to demonstrate feasibility, to provide justification for proceeding with larger studies, or to estimate statistical variability.It is the responsibility of the PI to propose pilot studies. Occasionally, the ACC will suggest a pilot study. A pilot study requires the submission of an Animal Use Protocol Form. The PI must report the results of the pilot study to the ACC, whether or not the study was successful. If the study will continue to a larger study, the PI must submit a new Animal Use Protocol Form. |
| 1. **Animals to be used**

"CCAC-certified institutions are required to report their annual animal data to the CCAC every year and provide specific information regarding the number of animals, the types of projects they were involved in and the invasiveness of the procedures undertaken." (From: [CCAC - Canadian Council on Animal Care: Reporting Instructions and Forms](https://ccac.ca/en/animals-used-in-science/animal-use-data/reporting-instructions-and-forms.html) )Please provide the number of animals that will be needed. This information will be verified annually.

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| **Animal Species *(Common Name)*** | **Total Number Animals/Year** | **Source of Animals*****(Include permit # if applicable)*** | **Expected Baseline Mortality (*%*)** |
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**Note:** if you require additional space, please create a copy of this table and append it to this document.Type of experiment: [ ]  Survival [ ]  Non-Survival Location of Animals: Click or tap here to enter text.Location of Experiment: Click or tap here to enter text.Type of housing: [ ]  Group Housing [ ]  IsolationHas the Animal Care Technician been approached regarding animal housing requirements?  [ ] Yes [ ]  No [ ] N/A * If No, please provide an explanation as to why not.
* Click or tap here to enter text.
 |
| 1. **Replacement, Reduction and Refinement (The 3 R’s)**

Consideration of the Three Rs (replacement, reduction, refinement) is important when proposing to use animals. Please indicate how each of the Three Rs has been considered in your proposed study. Links to the [CCAC - Canadian Council on Animal Care: Three Rs](https://ccac.ca/en/three-rs/) microsite are provided for more information.**Replacement** (replacing the use of animals with non-animal alternatives, or replacing higher order animals with lower order animals):Click or tap here to enter text.**Reduction** (strategies that will result in fewer animals being used to obtain sufficient data to answer the research question):Click or tap here to enter text.**Refinement** (modification of husbandry or experimental procedures to minimize pain and distress and enhance animal welfare):Click or tap here to enter text. |
| 1. **Description of Project and Procedures**

Please indicate the objectives of the proposed study and describe in DETAIL all procedures and techniques to be used. Any reference to an SOP must include MSVU ACC SOP number and/or title for new SOP submitted with this protocol.Click or tap here to enter text.**A) Provide details on how animal welfare will be assessed and recorded.** This plan should be suited to the type of scientific activity and designed to optimize the collection of information without adding procedures that would cause stress for the animal.Click or tap here to enter text.**B) Describe the extent of cumulative uses for the animals and provide details on tracking use:**Click or tap here to enter text. |
| 1. **Drugs used for Anaesthesia / Analgesia**

[ ]  Not Applicable (proceed to section 9)

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| Species | Agent | Purpose | Route of Administration | Dosage | Frequency |
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\*\*Please note that an annual Health Canada exemption is required when using controlled drugs for research purposes. |
| 1. **Pain and Distress**

Is any pain and/or distress likely to be associated with the procedures or manipulations? [ ] Yes [ ] No (if “No”, proceed to section 10)[ ] Pain and/or distress is expected during the procedureDuration: Click or tap here to enter text.[ ] Pain and/or distress is expected after the procedure.Duration: Click or tap here to enter text.Expected pain level:[ ] Low[ ] Moderate[ ] HighPlease describe how the pain and/or distress will be alleviated or minimized:Click or tap here to enter text. |
| 1. **HUMANE INTERVENTION POINTS, SCIENTIFIC ENDPOINTS, & CUMULATIVE ENDPOINTS**

Humane Intervention Points: The pre-established criteria (e.g., observable impacts, physiological changes, behavioural signs) that indicate when an intervention (e.g., supportive care, analgesia, euthanasia) should occur in order to reduce welfare impacts to a level that has been approved by the animal care committee.Scientific Endpoints: The earliest points at which the approved objectives of the scientific activity can be achieved while also ensuring that the welfare impact experienced by the animals is minimized. When the scientific endpoints are reached, the approved live animal use is complete.**Cumulative Endpoints:** Cumulative endpoints are the points at which individual animals should be considered to have reached their lifetime maximum involvement in scientific activities. Cumulative endpoints must be considered for all animals that have been involved in multiple scientific activities, scientific activities of long duration, or scientific activities that contain multiple procedures over time.Definitions from: [CCAC guidelines: Identification of scientific endpoints, humane intervention points, and cumulative endpoints](https://ccac.ca/Documents/Standards/Guidelines/CCAC_guidelines_scientific_endpoints.pdf) ).**Except in extreme circumstances, death and moribund should not be used as humane endpoints. Humane endpoints need to be selected before an animal reaches these states.**Appropriate humane endpoints can include objective and relevant observations such as:a. body weight changes (e.g. rapid weight loss, deterioration of body conditionb. external physical appearance (injuries, skin lesions, tumors, air bubble disease in fish)c. behavioural changes (loss of appetite, failure to care for young)d. physiological changes (laboured respiration, loss of equilibrium in fish)Please provide a numbered list of potential endpoints for this protocol. Click or tap here to enter text.

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| **Scientific (experimental):** | **Human Intervention** |
| Click or tap here to enter text. | Click or tap here to enter text. |

Cumulative (if this is not applicable to your study, please provide justification as to why not)Click or tap here to enter text.When one of the above endpoints is reached, what will happen to the animal?[ ]  Humane euthanasia[ ]  Treatment/intervention will be applied to prevent or relieve unnecessary pain or distress.Specify treatment below:Click or tap here to enter text.How often will animals be monitored? (Be specific)Click or tap here to enter text.Who will do the monitoring?Click or tap here to enter text. |
| 1. **Euthanasia**

Please specify the method of euthanasiaClick or tap here to enter text.Details of above:Click or tap here to enter text.Please provide justification for use of any physical method of euthanasia (e.g., cervical dislocation, decapitation, etc.) without prior use of anesthetic:Click or tap here to enter text.Final disposition of animals if not euthanized (if adoption is final disposition, a signed Vetted Adoption Agreement must be submitted following the end of the study):Click or tap here to enter text. |
| 1. **Standard Operating Procedures**

Please list any SOPs (by MSVU/SMU ACC SOP number and title) that apply to your research or teaching project below and submit copies of SOPs to the Animal Care Coordinator at the time of protocol submission. All new SOPs or revisions must be submitted using the MSVU/SMU ACC SOP template.Click or tap here to enter text. |
| 1. **Hazardous Agents**

[ ] Not Applicable (proceed to section 14) **Specify each agent:**

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| Type(biological, chemical, carcinogen, radioisotope/radiation) | Amount and dosage | Route of administration | Frequency of administration | Time period of excretion |
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Specify each agent:Please provide the biosafety certificate # and/or radioisotope permit #, including expiration date(s), if applicable:Click or tap here to enter text.**Specify for each agent:**Potential health risks to humans or animals:Click or tap here to enter text.Special animal care requirement(s):Click or tap here to enter text.Precautions to be taken by personnel (including animal care staff):Click or tap here to enter text.Special containment requirements (i.e. special storage, waste and animal disposal requirements, emergency procedures):Click or tap here to enter text. |
| 1. **Research Staff & Students who will be handling the animals**

Per the MSVU/SMU ACC Policy on Animal Care and Ethics Training for Animal Users at Mount Saint Vincent University, training is mandatory for new faculty, graduate students, research technicians/technologists, research assistants/associates, postdoctoral fellows, and undergraduates. Please ensure the ACC Coordinator has a copy of any training certificates or logs on file.Protocols without complete training information will not receive full approval until proof of training is submitted to the ACC Coordinator. For information on training, please contact the Animal Care Coordinator.**Please list trained personnel:**

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| Name  | Department | Position/Rank | Type of Training (CCAC Training Modules, WHMIS, other animal specific training) | Year Training Was Obtained  |
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 Are you collaborating with anyone outside of the university with respect to this research?[ ]  Yes[ ]  No Researchers collaborating with this work:

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| Name | Place of Employment | Telephone |
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| 1. **Human Health and Safety Declaration**

By clicking the **I Agree** button below, I acknowledge that the Animal Care Committee does not have the capacity to evaluate human occupational health and safety matters. I further acknowledge that it is my responsibility to ensure that all human occupational health and safety guidelines are adhered to, and all requirements are met. This includes, but may not be limited to, completion of the Graduate Research Hazards Assessment form. [ ]  I Agree |
| 1. **Declaration and Signature**

By clicking the **certify and submit button** below, I certify that all animals used in this research project/course will be cared for in accordance with the principles outlined by the Canadian Council on Animal Care & the regulations of the University Animal Care Committee. I also certify all the information given here to be accurate and true. I understand that this work cannot proceed until approval has been given by the Saint Mary's University Animal Care Committee.[ ]  I certify and submit. Date Submitted: **Click or tap here to enter text.**Email to: animalcare@smu.ca  |
| **NOTE: THIS FORM CANNOT BE PROCESSED UNLESS ALL SECTIONS ARE COMPLETED.**THE PROTOCOL SUBMITTED IS SUBJECT TO APPROVAL BY the Joint MSVU/SMU ANIMAL CARE COMMITTEE.SHOULD AMENDMENTS TO PROJECTS OR PROCEDURES BE DEEMED NECESSARY, THE RESEARCHER MUST COMPLETE A PROTOCOL AMENDMENT FORM. THE APPROVED FORM SHALL BE APPENDED TO THIS PROTOCOL.**PROTOCOLS ARE VALID FOR A PERIOD OF ONE YEAR FROM THE DATE OF APPROVAL BY THE SMU ANIMAL CARE COMMITTEE.** |

***Acknowledgement****:* MSVU wishes to extend its appreciation to the Animal Care Committee at Saint Mary’s University for permission to adapt their form for use by MSVU researchers