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View: 1. Study team

1. STUDY TEAM - ANIMAL CARE COMMITTEE

* 1.1.

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Please select the Principal Investigator (PI) for the study. The PI is responsible for all aspects of the work conducted under this protocol. Once you hit "...", you can enter the PI's name, or enter the first few letters of his or her name and hit "Go". You can sort the returned list alphabetically by First name, Last name, or Organization by clicking the appropriate heading.

[Fred Woo](#)

The Principal Investigator must have a Faculty Appointment (i.e. Professor, Associate Professor, Assistant Professor, Clinical Associate Professor, Clinical Assistant Professor, Professor (PT), Associate Professor (PT), Assistant Professor (PT), Professor Emeritus/a, Associate Professor Emeritus/a, Assistant Professor Emeritus/a). This includes Clinical Faculty appointments in the Faculty of Medicine. If this is a Teaching protocol, please list the Principal Supervisor.

If you cannot see your name in the Principal Investigator list and you are the Principal Investigator of the study, please contact the RISE Support Desk at risesupport@ors.ubc.ca.

1.2.

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Provide the name of ONE primary contact person in addition to the PI who will receive ALL correspondence regarding this application. This primary contact will have online access to read, amend, and track the application.

Selecting a primary contact is optional. If a primary contact is not selected, the PI will be the only person to receive all correspondence.

The certificate of approval and notifications regarding the application will be emailed to this primary contact in addition to the PI.

If the primary contact is also a study team member, please ensure they are listed in Section 1.4.

Complete sections 1.3, 1.4 and 1.5 to add Co-Investigators and study team members directly involved in the care and use of animals in this study and designate their access for this study.

To add Co-Investigators in 1.3 and study team members in 1.4:

1. Click "...".
2. Enter the name or enter the first few letters of the person's name and click "Go".
3. You can sort the returned list alphabetically by First name, Last name, or Organization by clicking the appropriate heading.
4. Select the boxes beside ALL applicable names and click "OK".

To delete a person from the list, click "x".

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1.3 Co-Investigators:

List all Co-Investigators of the study. These members WILL have online access to read, amend and track the application.

Last Name	First Name	Institution/Department	Rank
-----------	------------	------------------------	------

There are no items to display

To meet the Canadian Council on Animal Care (CCAC) requirements, training is mandatory. The CCAC/NIAUT Training is required for all individuals listed on an animal care application. Registration information can be found at <https://animalcare.ubc.ca/training/ccac-ethics-online>.

The relevant practical courses offered through Animal Care Services are also mandatory. Registration information can be found at www.animalcare.ubc.ca.

When completed, please update your profile on RISE with the certificate numbers

Please make sure you have added yourself as either the Principal Investigator, primary contact, co-investigator or a study team member in order to continue with the application. If you do not see your name or any of your associates' names in the list, please have them added or inform them to add themselves by contacting the Office of Research Services at risupport@ors.ubc.ca with their particulars (name, department, rank, email, UBC employee number (if applicable), and phone number). Once added to RISE, the new user will

receive an email with his or her researcher number.

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1.4. Study Team Members

All study team members must be listed here and have an up-to-date RISE account, which will contain their online and practical training certificate numbers. Study team members will have online access to read, amend and track the application. Please note that changes cannot be submitted without PI action and consent. All study team members are required to read and adhere to the final approved AUP. The procedures performed by each study team member must be defined in section 4.8b (4.4b Breeding form).

To delete a person from the list, click "x".

Last Name	First Name	Employer	Rank
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There are no items to display

To meet the Canadian Council on Animal Care (CCAC) requirements, training is mandatory. The CCAC/NIAUT Training is required for all individuals listed on an animal care application. Registration information can be found at <https://animalcare.ubc.ca/training/ccac-ethics-online>. When completed, please update your profile on RISE with the certificate numbers

The relevant practical courses offered through Animal Care Services are also mandatory. Registration information can be found at www.animalcare.ubc.ca. Your profile on RISE will automatically be updated.

Please make sure you have added yourself as either the Principal Investigator, primary contact, co-investigator or a study team member in order to continue with the application. If you do not see your name or any of your associates' names in the list, please have them added or inform them to add themselves by contacting the Office of Research Services at risesupport@ors.ubc.ca with their particulars (name, department, rank, email, UBC employee number (if applicable), and phone number). Once added to RISE, the new user will receive an email with his or her researcher number. Please note that users who are UBC faculty,

students or staff are now able to self-register for an account in RISE.

*** Nickname of the Study.**

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What would you like this study to be known as to the Principal Investigator and Study team?
ACC Breeding Protocol

The name entered here will be what the study is known as on your home page, to the Principal Investigator and the Study Team. This title will not be printed on the certificate. Funding titles are requested on next page.

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View: 2. Funding Information

2. STUDY DATES AND FUNDING - ANIMAL CARE COMMITTEE

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2.1. *What is the start date and proposed duration of this study? Use the calendar box to select the dates(Internet Explorer). The start date must be defined as a date after which the protocol is approved.*

*** 2.1.a**

Start Date:
4/30/2019

*** 2.1 b**

How long do you anticipate this study will continue?
1 year

The date provided should identify when the research project(s) described under this protocol will begin. Please do not provide a date that is prior to when the protocol might be approved. For this reason, when considering this start date you must account for the time needed for preparation, submission and review of the protocol as well as the time required to address provisos. Based on historical data you should anticipate that 2 weeks will be needed from the date of ACC review; assuming no major provisos are identified. The proposed duration of your study is also required. For example, some studies will start in January and be completed within four months, while other studies may be completed over the full four years that the protocol covers.

The format in which the date is displayed may be different from

the one used for entry. This depends on the settings of your computer and/or software.

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Source of Funds

Please clearly identify the application for research funding associated with this ethics application. This will ensure that awarded research funds can be made available to you once this ethics application receives approval.

Section 2.2 lists the sources of all research funding applications that have been submitted by the PI and Co-Investigators on this study. To identify the research funding application/award associated with this study select the applicable box(es) below.

If the research funding application/award associated with this study is not listed below, please enter those details in question 2.3.

To delete a Research Funding Application from the list below, click "x".

2.2.

Research Funding Application/Award Associated with the study:

UBC Number	Title	Funding PI	Sponsor
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There are no items to display

Section 2.2 lists the research funding applications/awards that have been submitted to the UBC Office of Research Services and entered into our database. Identifying the associated research funding application/award will ensure that awarded research funds will be made available to you once this ethics application receives approval.

Please ensure you select the correct application. Note that the first two digits of the application number indicate the year the application was submitted (eg. Application #F14-00001 was submitted in 2014).

2.3.

Please click "Add" to enter the details for the research funding application/award associated with this study that is not listed in section 2.2.

Research Funding Application/Award Associated with the study not listed in section 2.2:

Title **Agency**

There are no items to display

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2.4.

Is the associated research funding application/award listed in sections 2.2. or 2.3. from either industry sources or from internal UBC funding opportunities?

Yes

Please note if the funding source supporting the research is from Industry then an external 3rd party peer review of the proposed studies must be completed prior to approval of this protocol.

Note: there is fee for service for industry funded projects. Payment is required prior to protocol approval.

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View: 3. Animal Information & Type of Animal Review

3. ANIMAL INFORMATION & TYPE OF ANIMAL REVIEW - ANIMAL CARE COMMITTEE

3.1.

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Please provide the names of **at least two** Emergency Personnel with **24 hour contact information** by selecting "Add". To delete someone from the list, select "x". To view additional contact numbers for that person, select the "Update" button in front of his or her last name.

Last Name	First Name	Department / Division	Contact Number
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There are no items to display

Please enter associates who have online access to RISE in section 3.1

List at least two (2) people who can be contacted in case of an emergency and their 24 hour contact numbers. The personnel listed need to be familiar with the project and should be listed in sections 1.3, 1.4 or 1.5. Every effort will be made to reach designated personnel; however, if an animal is in pain and/or distress and no one can be reached, the animal may be treated for symptoms or euthanized by the veterinarian without prior approval from designated people.

Ensure the people listed are aware they are the emergency contact.

For wildlife studies, this section is not required.

*** 3.2.**

Please select which of the following Canadian Council on Animal Care (CCAC) keywords that apply to your study using the "..." button to view the list. If these do not apply to your study, please select Not Applicable from the list. To delete a keyword from your list, select the "x" next to the keyword.

Keywords

Breeding, Breeding Colony, Sentinel Program

*** 3.3.**

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Purpose of Animal Use:

0

Choose the item (0-5) that best describes the purpose of animal use:

- 0.** Animals held in breeding colonies
- 1.** Studies of a fundamental nature in sciences relating to essential structure or 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 products 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.

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Pilot Project studies are approved for 3 months with the

*** 3.4.**

Please select type of application
Breeding

possibility of a 3 month renewal.

The Committee understands there are often cases when additional information is needed (e.g. study design, appropriate endpoints, or testing procedures) prior to proceeding with a full study. In these cases, an application for a pilot project can be submitted. Pilot Project studies are treated as expedited and do not require full committee review. They are approved for a limited number of animals and for three (3) months with the possibility of one three (3) month renewal. *A short-term research project with a limited number of animals does not constitute a pilot project by the Committee's definition.*

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3.5. *If this application is a renewal/continuation of a previous study, provide the application number of the previous study and attach a brief progress report.*

*** 3.5.a**

Is this application a renewal/continuation of a previous study?

No

3.5.b

Application number from previous study:

Please attach a progress report, describing any complications encountered relative to animal use (unpredicted outcomes, and any animal pain, distress or mortality), a brief report on the adequacy of the endpoints for the protocol, and on any complications encountered or refinements made relative to protecting animals from pain, distress or mortality and, any progress made with respect to the Three Rs of replacement, reduction and refinement of animal use.

3.5.c

Please select "Add" button to attach a progress report for the previous study:

Title

There are no items to display

Include the number of animals used in the preceding year. If this is a renewal of a breeding application, list both the number of animals transferred to research protocols as well as the number of surplus animals.

If this application is a new protocol, but there is direct experience with the procedures described, please consider providing a report containing information as outlined above.

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View: 4. Breeding Application

4. BREEDING APPLICATIONS - ANIMAL CARE COMMITTEE

4.1.
 Describe in lay terms the justification for this breeding protocol (e.g. why animals cannot be purchased from a commercial supplier). Cost should not be the sole justification.

*** 4.2.**
 List species/strain and the approximate total number of animals (**both breeders and offspring**) to be generated per year by selecting "Add". For each species/strain please indicate anticipated number of animals to be used for experiments, and the estimated surplus. To delete a species from the selected list below, select "x".

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Species Strain	COI	Animal Numbers Requested / Year	Housing Location	Genetically Modified	Number Used For Experiments/Year	Estimated Surplus	Breeders
View Birds - Other		Zebrafinch B 2	Bioscience Building (Zoology)				

Please list the number of animals required per year **not** per study. These animal numbers should include the breeders as well as the weaned offspring. If applicable, please indicate how many of each strain is required. Please estimate the number of produced animals that will be used in your approved research protocols (Experimental) and the number of animals, including retired breeders, that cannot be used directly in your approved research protocols (Surplus). The surplus animals (including breeders) plus the experimental animals should equal the total number of animals requested.

Please note, if a new transgenic line is being created, a research application is required. Also of note, the number of experimental and surplus animals should equal the total

<p>4.3.1.</p> <p><i>If in section 4.2 it was indicated that genetically modified animals will be bred, please describe any conditions expressed by the strain that may impair its welfare (e.g. animals only survive to 4 months of age due to a condition, animals develop skin conditions, etc). Also note any additional care that is required for a specific strain and who will provide the additional care.</i></p> <p>4.3.2.</p> <p><i>If in section 4.2 animals were listed as surplus, please explain why these animals will not be used in your experiments.</i></p> <p>* 4.3.3.</p> <p><i>Please justify the numbers of animals for each strain requested in this breeding protocol. These numbers should reflect those requested in your other research protocols. Where relevant, justification should include a description of the breeding scheme. For example, justification may include the need for backcrossing a line or creating homozygous animals, where numbers of breeding animals are likely to be much larger than what is actually required for research.</i></p> <p>X</p>	<p>number of animals requested per year.</p> <p>Many genetically modified animals have conditions which can impact their welfare. Researchers should educate themselves, when possible, about the expected conditions of each transgenic/knockout strain. Additional procedures that may be required to provide optimal animal care and the persons responsible for those procedures should be indicated.</p> <p>In the interest of Reduction, one of the 3 R's, as few animals as possible should be bred. It is understood that for some research projects not all the animals produced can be used for experimental studies. Please explain in detail why animals in this breeding program will be surplus.</p>
<p>* 4.4.</p> <p><i>Describe procedures involving animals. Use simple language to describe what procedures are used in the breeding colony. If the unit has developed Standard Operating Procedures these can be attached below. These documents, however, do not replace the need to complete this description.</i></p> <p>X</p> <p><i>Please attach documents if required for breeding procedures by selecting "Add".</i></p> <p>Title</p> <p>There are no items to display</p>	<p>The breeding procedures need to be described in detail (e.g. breeding scheme, husbandry, weaning, number of animals per cage, genotyping, etc.). Any research details should be covered in the research protocol and not in this breeding protocol.</p> <p>All procedures must comply with UBC Animal Care Committee Policy 013 - Rodent Breeding Colonies. This policy can be found here.</p>
<p>4.4.A.</p>	

Attach Standard Operating Procedures (SOPs) for breeding procedures by selecting "Add".

Name **Version**

There are no items to display

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4.4.B.

Identify which procedures, described in 4.4, each person listed below will perform. Click each person's name in order to add this information. The UBC rodent training courses completed by each person will autopopulate and will indicate which procedures requiring mandatory training each person has been certified to perform. Give level of qualification or training for each person for the procedures not covered by the mandatory UBC rodent training.

Study Member	CCAC/NIAUT Training	ACC Training Courses	Procedures Described in 4.4 Performed by Individual	ACS Certified for Physical Euthanasia
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Fred Woo	000			no
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For each person listed, **please indicate which of the in vivo animal procedures described in section 4.4 they will perform, as well as all the relevant training and ACS training certification they have received.** Completed UBC rodent based training certification will automatically populate once the study team member has completed the course. If a UBC rodent based training course is required for a procedure, it must be successfully completed before a study team member can perform that procedure. UBC rodent based training is species specific and each person's required training depends on the procedures that individual will perform. Required training includes Introduction to Working with Rodents in Research, Rodent Restraint and Injection, Introduction to Rodent Anesthesia, Introduction to Aseptic Surgery, Rodent Gavage and Rodent Intravenous Tail Vein Injection. To sign up for UBC training courses or to request specific training on procedures that are not a require course, please go to <https://animalcare.ubc.ca/training/acs-online-lab-rodent-courses>. A person will only be permitted to perform the procedures associated with their name and for which they have appropriate training and expertise. If a person is not listed in this section,

they will not be permitted to perform any in vivo animal procedure.

For procedures in which there is not a required course, please provide the training and expertise of the person for that procedure.

Example:

John Smith Mouse saphenous blood collection - 6 years experience
Rat saphenous blood collection – 2 years of experience

For study team members who have completed the ACS rodent based training courses prior to 2009, the certificate numbers may not autopopulate. Competency level information was not determined prior to 2015 so competency level information will not be available for those courses. If you have any questions regarding required courses or completed courses and competencies, please contact train.acs@ubc.ca

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*** 4.5.**

Describe the monitoring procedures and endpoints used to determine if an animal should be euthanized. This should incorporate any genetically modified animal conditions listed in section 4.3.

x

Please attach documents if required for monitoring procedures and endpoints by selecting "Add".

Title

There are no items to display

Provide a description of what objective criteria are being monitored and how those criteria will be used to determine an animal should be euthanized.

For more information on humane endpoints select [here](#).

It is a guideline of the CCAC (Guide to the Care and Use of Experimental Animals, CCAC, 1993) and a

requirement of the UBC ACC that animals will be observed on a daily basis. However, once an animal has been allocated to a research project or is in a potentially critical period with respect to impairment, more frequent observations and specific monitoring may have to be performed.

Please see the UBC Animal Care Policy on Animal Monitoring:
<https://animalcare.ubc.ca/animal-care-committee/policies-and-guidelines>

*** 4.6.**

Please provide details on environmental enrichment for the animals. If enrichment is not being provided, provide justification.

X

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Environmental enrichment should allow an animal to perform its normal behaviours and enhance stimulation. The best environmental enrichment is usually a conspecific. An example of good enrichment would be providing group-housed mice with nesting material and hiding places in addition to their normal bedding.

4.7.1.

Under which research protocols will the animals bred for experiments be used?

X

4.7.2.

What is the fate of the surplus animals (animals not required for experiments or retired breeders)? If euthanasia is planned, describe the method that will be used including drug dosage and administration route. If animals will be transferred to another approved research protocol, please list the protocol number and investigator.

4.7.3.

What is the maximum age by which all animals NOT transferred to research protocols (i.e. Breeders and wean) will be euthanized?

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4.8.

A UBC breeding registry is being maintained, do you consent to include this strain(s)?

Yes **No**

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View: 8. Signatures and Final Page

8. SIGNATURES AND FINAL PAGE - ANIMAL CARE COMMITTEE

[Help](#)

** Please confirm that all associates listed on this study have read and agreed to comply with this study.*

Yes

** If SOPs have been attached or referenced in this application, please confirm that all team members listed in sections 1.3, 1.4, and 1.5 have read the SOPs and they understand, accept and agree to follow the methodological procedures described in those SOPs.*

 Yes No

** Please confirm that all study team members are aware that Post-Approval Monitoring, including laboratory visits/viewings, are an important regulatory requirement that the University of British Columbia must meet. Continued protocol approval and renewal are subject to full cooperation with the PAM process and achieving compliance in a timely manner.*

 Yes No

** Please confirm that the work described in this protocol is conducted solely for grants listed.*

 Yes No

You have reached the end of the Animal Care Application.

OPTIONS

1) submit application (PI only) - click the "Continue" button and "Submit application" on the next page. NOTE: the "Submit application" button is only visible to the PI.

2) work on this application later - click the "Continue" button. Your application will be in "Pre Submission" and saved in your inbox.

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