

Office of Research Services Michael Williams Building, Room B202 uvic.ca/research-services

Animal Use Protocol (AUP) Application Help Sheet – Teaching Research Administration Information System (RAIS)

Before You Begin

This document provides instructions and guidance specifically for **new** teaching AUP applications created and submitted via RAIS. If you have an approved teaching AUP (PDF format), refer to the <u>PDF AUP Help Sheet</u> for guidance for amendments and renewals. RAIS supports **new** teaching application submissions, and their subsequent amendments and renewals.

If this is your first teaching AUP submission, we advise you to contact the Veterinary Director (<u>ascvet@uvic.ca</u>) and/or the Animal Ethics Liaison (<u>animalethics@uvic.ca</u>) to discuss your project and to request an application pre-review before you submit to the ACC. Review the <u>pre-review FAQ</u> for more information.

Acronyms

AUP - Animal Use Protocol ACC - Animal Care Committee CCAC - Canadian Council on Animal Care PI - Principal Investigator AEL - Animal Ethics Liaison (<u>animalethics@uvic.ca</u>) SOP - Standard Operating Procedure RAIS – Research Administration Information System

Policies and Guidelines, ACC Requirements and Deadlines

Policies and Guidelines

- Visit the <u>Applying for animal ethics approval</u> website to review all of the ACC policies and procedures.
- Visit the <u>CCAC</u> website to review national guidelines and policies.
- The ACC follows CCAC Guidelines on Animal Use Protocol Review.

ACC Requirements

- All required sections of the AUP application must be completed (required items are marked with an *).
- After approval, additional procedures or revisions to your AUP must be submitted as an amendment and approved by the ACC before the work is undertaken.
- Animal-based research and teaching must comply with Canadian Council on Animal Care (CCAC) and UVic guidelines and policies.
- Teaching protocols are reviewed for <u>pedagogical merit</u> prior to submission.
- Research protocols are peer reviewed for scientific merit prior to submission.

Deadlines

- ACC meetings are held on the second Friday of each month (third Friday in September and January); the ACC does not meet formally in July or August.
- <u>Meeting dates and submission deadlines</u> are set for the current academic year.
- Incomplete applications or those received after the deadline date will be deferred to the next meeting.

New Lab and/or Field Research Applications

- Use the research application for:
 - animal-based research projects conducted in a lab environment (Animal Care facilities and/or researcher lab facilities)
 - \circ for projects that will combine lab and field components, or
 - o for projects that are fully field research based.
- When you submit your AUP application on RAIS your designated signatory (departmental Chair/Dean) is notified to review your application and provide sign-off.
- After signatory sign-off, your application is submitted directly to the Animal Ethics Office via RAIS.

New Teaching Applications

- Use the teaching application for:
 - o animal-based projects conducted for teaching and training programs.
- When you submit your teaching AUP application on RAIS your designated signatory (departmental Chair/Dean) is notified to review your application and provide sign-off.
- After signatory sign-off, your application is submitted directly to the Animal Ethics Office via RAIS.

Regular Amendment of an Approved RAIS AUP Application

- RAIS AUPs can be amended with the "+Update" button on the AUP summary page.
- A PI must initiate the amendment.
- Re-submit your amended AUP via RAIS to the Animal Ethics Office.
- Sign-off by a signatory is not necessary for amendments.

Expedited Minor Amendments of an Approved RAIS Application

- The Veterinary Director can approve expedited minor amendments on behalf of the ACC.
- Expedited minor amendments can be initiated when the PI selects the "+Update" button on the AUP summary page.
- Re-submit your amended AUP via RAIS to the Animal Ethics Office for review by the Veterinary Director.
- Sign-off by a signatory is not necessary for expedited minor amendments.

Renewal of an Approved Application (With or Without Amendments)

- RAIS AUPs can be renewed with the "+Update" button on the AUP summary page.
- Approved protocols expire after their third renewal and must be submitted as "new" at the end of every fourth year (a new protocol ID will be assigned).

Team Member Changes to an Approved Application

- Researchers, lab members, and/or teaching assistants who intend to handle animals must complete all required <u>animal research education and training</u> components **before** beginning work.
- New team members must complete the required animal education and training **before** they may be added to the AUP application (Section A).
- To initiate training for new team members, contact <u>animaltraining@uvic.ca</u>.
- Team member training will be recorded to the team member's profile on RAIS.
- Submit an expedited minor amendment to make changes to your team members on an approved AUP.

Starting and navigating a RAIS AUP application

How to start a RAIS AUP application

- Refer to the "Create an AUP application" <u>quick guide</u> for visual instruction.
- Log in directly to RAIS using your NetLink ID and password, or access via Online tools.
- Access to RAIS from off-campus requires use of the <u>UVic VPN</u> for remote access. If your computer or laptop is not connected to the VPN, you will get a white screen with no instructions.
- From the RAIS homepage you can access funding, human ethics or animal ethics; choose *Go to animal ethics* to get started.
- To start a new AUP application, select the *Start new application* button (top right corner of the screen) and then choose *Start research AUP application* <u>OR</u> *Start teaching AUP application*
- Only faculty may start a new application and act as a PI for a research or teaching project. If you are faculty and you do not see the *Start new application* button, contact <u>animalethics@uvic.ca</u> for assistance. Your permissions within RAIS may need to be updated.
- If you have any issues accessing RAIS or questions about the research or teaching application, email <u>animalethics@uvic.ca</u> for guidance.

Navigating the RAIS teaching application

- Sections:
 - The teaching application includes sections A N. An overview of the questions and what information the ACC requires is detailed below, section by section.
 - o To open each section and access section questions, click on the section row header.
 - Each section row header includes the section title and a status on the right hand side of the row header (e.g., not started, in progress, complete).
 - You may expand (open) or collapse (close) each section as needed by clicking on the section row header.
 - Commands to *Collapse all* or *Expand all* are located at the top right of the screen and will affect all sections.
 - We recommend working through each section in the order presented; however, in the presubmission phase you may return and edit any section, in any order.
 - Refer to the "<u>teaching AUP moving from PDF to RAIS</u>" quick guide for instruction on how question information relates from teaching AUPs in PDF format to RAIS teaching applications.
- Saving your information:
 - You may save each section "in progress" or "as complete".
 - o In pre-submission, you may return to sections saved as complete and make additional edits.
 - As you are working on the application, save your information often.
- Team member access:
 - To provide immediate access to the AUP application by your team members: go to Section A, list your co-PI (if you have one), emergency contact/senior lab instructor and other teaching team members, designate their access (view or edit) and save as complete.
- Required information:
 - \circ Required questions are indicated with an *.
 - o If you miss a required question, you will receive an error message when you save as complete.
 - A summary of all information missing in the section is provided at the top of the section. The affected questions within the section are also highlighted in red, along with a prompt beside the question to clarify what is missing.

The teaching AUP, section by section...

A. Teaching Team

- 1. Principal Investigator
 - Provide the name, position, and contact information of the UVic faculty member who is the Principal Investigator (PI) on the teaching project.
 - Contact information for the PI must be provided.
 - PIs must complete all mandatory animal care education and training before working with animals; to initiate mandatory training contact <u>animaltraining@uvic.ca</u>.
- 2. Co-Pl
 - One additional faculty member (internal or external to UVic) may be listed as Co-PI on the teaching project.
 - The Co-PI will be able to view and edit the AUP application, view all team member training profiles, and give these same privileges to other teaching team members.
 - To be listed on the application, the Co-PI must have an active NetLink ID and must have completed all the mandatory animal care education and training.
 - Provide contact information for the Co-PI.
- 3. Emergency contact (EC)/Senior lab instructor
 - Designate a team member as your primary EC (for teaching applications this would normally be the Senior lab instructor) and provide their contact information.
 - Email <u>animaltraining@uvic.ca</u> for assistance with registering new team members, if not found in options list. Personnel must have completed mandatory animal care training to be listed.
 - Indicate whether the EC/Senior lab instructor should have read or edit access to the AUP.
 - Edit access allows them to edit this application, view all team member training profiles, and give these same privileges to other team members.
 - Read access does not allow the EC/Senior lab instructor to view team member training profiles.
 - Alternate emergency contacts may be identified in A.4. Other teaching team members.
- 4. Other teaching team members
 - List all individuals involved in conducting this teaching project (e.g., additional coinvestigators, research assistants, UVic students).
 - Edit access allows a team member to edit this application, view all team member training profiles, and give these same privileges to other members.
 - Read access does not allow a team member to view other members' training profiles.
 - Do not re-list the Co-PI added to A.2. or EC added to A.3.
 - Alternate emergency contacts may be identified by checking the box below the phone icon for the listed team member in the table.
 - To initiate animal care training for new teaching team members email <u>animaltraining@uvic.ca</u> for assistance.

B. Project information

- 1. Project title
 - Include course number, course name, and lab/project title

- If the lab/project focusses on a major species (e.g., rat, Atlantic salmon etc.) this should also be included.
- The title must be unique and should provide a brief, succinct description of the lab/project.
- Example: BIOL### CourseName Lab/Project Title (including major species, if applicable)
- 2. Provide a brief description of the teaching lab/project (2-3 sentences)
 - Use concise, <u>lay (plain) language</u> that the general public will understand (grade 8 reading level).
 - Do not use jargon (i.e., avoid technical, scientific or obscure terms).
 - Describe why it is important that the lab/project you are proposing is performed, and why animals must be used.
 - Examples of helpful information to include: the species being used and the pedagogical merit of the lab/project.
 - This information may be used in response to media or other inquiries.
- 3. Teaching timelines
 - Provide the academic year(s) and academic terms for the teaching lab/project described in this AUP application.
 - No teaching may be undertaken until ACC approval is provided.
 - Enter dates in YYYYYYY format (e.g., 2024/2025)
 - Select one or more academic terms from the drop-down list (e.g., Sept Dec, Jan Apr, or May – Aug). To access the drop-down options, click on "Select one or more from the list" in the text box.
 - Note: ACC review and approval timelines are generally four to six weeks from the submission date or possibly longer depending on the complexity of the application.
- 4. Has the project been reviewed for pedagogical merit?
 - All proposed animal-based teaching or training must be reviewed and approved for pedagogical merit prior to AUP submission to the ACC for review.
 - See Instructions to Faculty Regarding Pedagogical Merit Review.
 - A copy of your Pedagogical Merit review approval must be uploaded with your AUP submission.
- 5. Select Canadian Council on Animal Care (CCAC) keywords from each category for your project
 - From the options provided in the drop-down lists for each category, select all keywords that apply to your teaching project.
 - If none apply, select N/A.
- 6. Is this a pilot project?
 - A pilot project is a relatively short and/or relatively small project required to gather information prior to a full project.
 - Pilot projects may be used to:
 - clarify the study design, endpoints, or testing procedures
 - establish the feasibility of working with a piece of equipment, a strain, a species, in a new remote location or using a new technique.
 - Pilot projects typically use fewer than 20 animals.
 - If you are unsure whether your project meets the criteria for a pilot project, contact <u>animalethics@uvic.ca</u> for additional information or guidance.

- 7. Field research
 - For field or wildlife research questions see:
 - Field research with animals UVic FAQ
 - Wildlife research <u>CCAC FAQ</u>
 - <u>CCAC guidelines: Wildlife</u>
 - Is there a field component to the teaching/lab project?
 - A field component is research with live animals carried out in locations <u>other than</u> UVic facilities.
 - Confirm whether there is a field component to your teaching/lab project.
 - Will the teaching be conducted exclusively in the field (i.e., no lab component)?
 - Confirm whether the teaching will be conducted exclusively in the field.
 - Provide licences and or permits permitting the work or capture.
 - Use the document upload to attach licences or permits obtained.
 - It is the responsibility of researchers to ensure that all required licences and/or permits are in place *prior* to conducting teaching in the field.
 - Licence and permit requirements vary widely between locations; researchers are encouraged to start this process early.
 - Examples of field licences and/or permits include (but are not limited to):
 - First Nations Consultations (e.g., Work plan agreement, etc.)
 - National Wildlife Area Permit
 - Species at Risk Act (SARA) Permit
 - Fisheries & Oceans Canada SARA Permit (for prohibited aquatic species)
 - o DFO Scientific Licence
 - o BC Introductions and Transfers Licence
 - o BC Ministry of Environment Scientific Fish Collection Permit
 - Parks Canada's Research and Collection Permit
 - o Wildlife Act Permit, Ministry of Forests, Lands and Natural Research Operations
 - o CRD Parks Research Permit

C. Course details and training

- 1. Provide the ratio of instructors to students for this teaching project.
 - Example: One instructor available for every 20 students.
- 2. Will teaching assistants be involved in animal handling/experimentation?
 - If yes, explain the training that will be provided to teaching assistants.
- 3. Will students be handling animals?
 - If yes, explain the training that will be provided to students.
 - If no, confirm whether or not student participation in the lab will be restricted to observation of live animals only.
- 4. Will students be conducting experiments that could impact animal welfare?
 - Refer to the list of experiments or activities that may impact animal welfare:
 - Invasive procedures
 - Habitat disruption
 - Administering substances
 - Altering light

- Altering temperature
- Altering other environmental housing parameters
- Short- or long-term restraint
- Confirm whether or not proposed experiments or activities could impact animal welfare.

D. Purpose of animal use

- 1. Purpose of animal use
 - a. Indicate if the application will include breeding.
 - b. All teaching AUPs are automatically assigned to the following purpose: Education and training of individuals in post-secondary institutions or facilities.

E. Replacement alternatives and reduction

- 1. Describe why sentient animals must be used for this teaching lab/project and how you came to this conclusion.
 - The CCAC requires researchers to implement <u>CCAC: The Three Rs (Replacement,</u> <u>Reduction, Refinement)</u> when preparing animal-based research projects
 - See <u>EQIPD</u> for guidance on the principles of rigor and robustness in animal experiments
 - See <u>NC3Rs</u> for guidance on identifying, developing and using 3Rs technologies and approaches
 - Include references to databases you have used to confirm the presence or absence of alternatives
- 2. Are any replacement alternatives available for any aspect of the teaching lab/project?
 - Replacement refers to "technologies or approaches that directly replace or avoid the use of animals"
 - For more information on replacement, see the <u>CCAC website: The Three Rs Replacement,</u> <u>Reduction, Refinement.</u>
 - a. If yes: Select any available replacement alternatives from the list provided and/or choose other and provide details.
 - b. Indicate whether you are planning to <u>use</u> any of the available replacement alternatives.
 - If yes: c. Select which approaches will be used.
 - Select all that apply from the list and/or choose other and provide details.
 - If no: c. Justify why you will not use these alternatives for your teaching lab/project.
 - If you are not using available replacement alternatives in the project you must provide a scientific justification.
- 3. Are any reduction-related approaches available for any aspect of the research project?
 - Reduction refers to "methods that help obtain comparable levels of information from the use of fewer animals"
 - For more information on reduction, see <u>Reduction strategies in animal research</u> or the <u>PREPARE guidelines checklist</u>
 - Click on "See examples..." for a list of possible reduction approaches.
 - a. If yes: Select available reduction approaches from the list provided or choose other and provide details.
 - b. Indicate whether you are planning to <u>use</u> any of the reduction-related approaches.
 - If yes: c. Select which approaches will be used.
 - Select all that apply from the list and/or choose other and provide details in d. *Updated October 2024*

Provide general details.

• If no: c. If you are not using reduction approaches in the teaching lab/project, you must provide a scientific justification.

F. Animal use numbers

- 1. Indicate which protocol year the animal number information is applicable to?
 - New protocol applications select Year 1 from the list and provide animal use numbers in F.2. for the first year of the research only.
 - Renewals select the next protocol year and update animal use numbers in F.2. for the year ahead.
 - Amendments <u>do not</u> change the protocol year.
- 2. Provide requested information for animals required for teaching
 - The ACC expects that experiments are designed carefully to provide both realistic and justifiable animal use numbers.
 - The ACC encourages the implementation of strategies to reduce the number of animal experiments conducted and the number of animals needed.
 - Researchers are encouraged to review the <u>CCAC: The Three Rs</u> and the <u>NC3Rs</u> <u>Experimental Design Assistant</u>.
 - Choose the appropriate category(ies) for your research animals (a. mammals, b. aquatic/amphibian, or c. field) and click + Add new below the category to add records.
 - For each record, respond to all the questions (i.–x. for mammals and aquatic/amphibian species; i.–vii. for field species) for the relevant species/strain.
 - Each record can be collapsed after all questions in the record are answered. When collapsed, the header row will contain key information (common name, strain, housing and total #) pertaining to each animal/strain.
 - Records can be re-ordered by "grabbing the row" click on the three horizontal rows on the left-hand side of the header row (look for the pop-up instruction "*Click and drag to re-order*") and drag up or down to re-order as necessary.
 - a. Mammalian species used in the lab
 - i. Species
 - Choose common name of species from options (mouse, rat, or rabbit). Common name and scientific name will auto-fill.
 - Provide strain information and indicate if transgenic, knockout or mutant (complete and upload a <u>transgenic information sheet</u> if applicable).
 - ii. Describe the rationale for using this specific species/strain
 - Why did you choose this species/strain for your project? Consider characteristics that influenced the selection like body size, relevant genetic modifications, naturalized species in the area, data from previous studies, unique anatomic or physiological features etc.
 - Keep rationale brief (under 2000 characters).
 - Animal cost is not an appropriate rationale for choosing a species/strain.
 - iii. Total number of animals acquired within this year of the protocol from all sources
 - iv. Supplier/source
 - Indicate supplier or source by clicking the box, choose all that apply, and answer follow up questions for each source box selected.
 - v. Preferred housing locations

- Indicate the preferred location for housing your animals (BWC, MSB or a lab). Note that if you plan to house animals outside of purpose-built space for more than 12 hours, scientific justification must be provided in Section I.4.
- vi. Special housing requirements
 - Detail special housing requirements like containment, biosafety or modifications from standard practices. Note that welfare assessment and scientific justification for restrictions must be described in-depth in sections H. and I. and <u>do not</u> need to be discussed here.
- vii. Maximum number of cages used to house animals at the same time
 - This information assists with the management of the animal housing facility.
 - Be sure to include animals kept for any purpose.
 - Contact <u>acshouse@uvic.ca</u> if you need assistance determining the # of cages.
- viii. Experimental location(s)
 - Choose all that apply from the list.
- ix. Number of animals used within this year of the protocol
 - o Indicate females/males used for breeding, experiment and/or euthanized.
 - If the same animals are used for breeding <u>and</u> experiment, count them under <u>one</u> category here and explain in x.
 - Total animals used (greyed field) is auto-calculated based on your inputs above in ix.
 - If total animals used does not match total acquired (iii.) describe the purpose of extra animals (e.g., held for future years' use, other protocols etc.) or sources of additional animals in your explanation of usage in x.
- x. Explain how you calculated your animal usage numbers
 - Explanations involving <u>multiple related animal groups</u> may be provided in F.2.d below and referenced here (e.g., "See F.2.d for explanation involving this species/strain"). <u>No need to duplicate explanations</u>. Provide explanation here <u>or</u> in F.2.d. whichever is most appropriate for your project.
 - Statistical power calculations are encouraged.
 - o If you wish to attach related documents, use the upload provided.
 - Show the number of experimental and control groups, expected failure rates, cull rates, and repetitions that factor into your calculated total.
 - Describe your reduction strategies.
 - If applicable, provide an estimate of the percentage of experimental animals being calculated as a "buffer" for each aspect of the experimental timeline and explain how you arrived at these estimates.
 - If sourced from breeding within this protocol, include the expected percentage bred that will be suitable for use.
- b. Aquatic and amphibian species used in the lab
 - i. Species
 - \circ Provide common name, scientific name, and strain information if applicable
 - Choose developmental stage(s) from list or provide a range (e.g., "fry to adult" by typing the information. Create a separate record for each group acquired at a different developmental stage.
 - Indicate if transgenic, knockout or mutant (complete and upload a <u>transgenic</u> <u>information sheet</u> if applicable).
 - Indicate if this species is protected under the Species at Risk Act or a similar international law.
 - See <u>Schedule 1 of the Species at Risk Act</u> for reference and upload all relevant *Updated October 2024*

licences and permits to Section B.7

- ii. Describe the rationale for using this specific species/strain
 - Why did you choose this species/strain for your project? Consider characteristics that influenced the selection like body size, relevant genetic modifications, naturalized species in the area, data from previous studies, unique anatomic or physiological features etc.
 - Keep rationale brief (under 2000 characters).
 - Animal cost is not an appropriate rationale for choosing a species/strain.
- iii. Provide total number of animals acquired within this year of the protocol from all sources.
- iv. Supplier/source
 - Indicate source by clicking the box, choose all that apply, and answer all follow up questions for each source box selected.
 - Collected in the field If you will hire someone to do field collection of the target species on your behalf, choose the "*Collected in the field…*" option and indicate capture location. Provide the name of the contractor in the details of your collection procedures in Section H.3. Indicate the number of animals to be captured and then housed at UVic within the protocol year.
 - Use "Purchased from a commercial supplier" if bought from a company that manages a stock of wild-caught animals.
- v. Housing location(s)
 - Indicate the preferred location for housing your animals (OAU, Petch or Lab).
 Choose all that apply. Note: if you plan to house animals outside of purpose-built space for more than 12 hours, scientific justification must be provided in Section I.4.
- vi. Special housing requirements
 - Detail special housing requirements like containment, biosafety or modifications from standard practices. Note: welfare assessment and scientific justification for restrictions must be described in-depth in Sections H. and I. and <u>do not</u> need to be discussed here.
- vii. Maximum number of animals housed at the same time.
 - This information assists with the management of the animal housing facility.
 - \circ $\;$ Be sure to include animals kept for any purpose.
 - Total housed at the same time (greyed field) will be auto-calculated based on your prior inputs.
- viii. Experimental location(s)
 - Choose all that apply (OAU, Petch or Lab).
- ix. Number of animals to be used within this year of the protocol
 - Include animals used for experimentation, breeding and/or euthanized for wrong sex, health problems etc.
 - \circ $\;$ Total animals used is auto-calculated based on your prior inputs.
 - If total animals used does not match total acquired (see F.2.iii.) describe the purpose of extra animals (e.g., held for future years' use) or sources of additional animals in your explanation of usage (x.)
- x. Explain how you calculated your animal usage numbers.
 - Explanations involving <u>multiple related animal groups</u> may be provided in F.2.d below and referenced here (e.g., "See F.2.d for explanation involving this species/strain"). <u>No need to duplicate explanation</u>. Provide explanation here <u>or</u> in F.2.d. whichever is most appropriate for your project.
 - o Statistical power calculations are encouraged.
 - \circ $\:$ If you wish to attach related documents, use the upload provided below the text box.

Updated October 2024

- Show the number of experimental and control groups, expected failure rates, cull rates, and repetitions that factor into your calculated total.
- Describe your reduction strategies.
- Provide an estimate of the percentage of experimental animals is being calculated as a "buffer" for each aspect of the experimental timeline, if applicable, and explain how you arrived at these estimates.
- If sourced from breeding within this protocol, include the expected percentage bred that will be suitable for use.
- c. Animals used in the field
 - i. Species
 - Provide common name and scientific name.
 - Choose developmental stage from list. Create a separate record for each group acquired at a different developmental stage.
 - Be sure to include separate records for each species that may be encountered as by-catch.
 - ii. Indicate if the species is protected under the Species at Risk Act or similar international law.
 - For reference, see <u>Schedule 1 of the Species at Risk Act</u>
 - Licenses and permits must be uploaded in Section B.6.
 - iii. Provide observation/experimental location(s).
 - iv. Indicate if these animals are required for your project or are they encountered as bycatch only?
 - If bycatch is selected, outline the precautions that will be taken to avoid capturing vulnerable animals and what action will be taken if these animals are captured.
 - v. Provide number of student-animal interactions likely to occur over one field period.
 - Include all animals that you expect to observe, capture and release, experimentally manipulate, or capture and euthanize in the field, over one field period.
 - vi. Provide total number of research-animal interactions within this year of the protocol.
 - Include all animals that you expect to observe, capture and release, experimentally manipulate, or capture and euthanize in the field, over the full year of the protocol.
 - vii. Explain how you calculated your animal usage numbers.
 - Explanations involving multiple related animal groups may be provided in F.2.d below and referenced here (e.g., "See F.2.d for explanation involving this species/strain"). No need to duplicate explanations. Provide explanation here or in F.2.d. whichever is most appropriate for your project.
 - Statistical power calculations are encouraged.
 - \circ $\;$ If you wish to attach related documents, use the upload provided.
 - Show the number of experimental and control groups, expected failure rates, cull rates, and repetitions that factor into your calculated total.
 - Describe your reduction strategies.
 - Provide an estimate of the percentage of experimental animals is being calculated as a "buffer" for each aspect of the experimental timeline, if applicable, and explain how you arrived at these estimates.
 - In the case of field studies there may be incomplete observations. Considerations such as these should be incorporated in your calculation of the number of animals you will need per year.
 - Field researchers may find the <u>NC3Rs Experimental Design Assistant</u> helpful as a reference
- d. Supplemental explanation of animal usage numbers that apply across multiple animal *Updated October 2024*

species/strains (be sure to reference in the strain records in F.2.a/b. or c).

- If the animal usage explanation applies across multiple animal species/strains then provide <u>one</u> explanation here and reference this explanation in the individual strain records above.
- <u>No need to duplicate effort</u>, if you have already provided explanations for individual strains/species, then indicate this e.g., "explanation of animal usage numbers provided above."
- 3. Provide the ratio of students to total teaching animals.
- 4. Will you require ACS housing for invertebrates, embryos/eggs, or other animals not governed by CCAC guidelines?
 - If ACS housing is required, contact <u>acshouse@uvic.ca</u> as soon as possible to discuss your housing needs and to ensure space is available.

G. Facility and husbandry procedures

- 1. Select all of the Animal Care Services (ACS) facility and husbandry procedures that apply to your teaching project.
 - Click on a category heading (a. g.) to open and select all facility and husbandry procedures that apply to your project from that category by checking the boxes.
 - Select SOPs that will be preformed by researchers or ACS, in a researcher's absence. Note: Standard day-to-day husbandry procedures do not need to be selected, unless they are procedure/project specific.
 - Invasive procedures on live animals are <u>not</u> covered in this section. These will be detailed in Section H.
 - For reference, see the entire library of <u>Approved SOPs</u>.
- 2. List any additional facility or husbandry SOPs to be used in the project not listed and selected in G.1.
 - New SOPs are being developed all the time and may not have been added to the checklists above yet. List them here. Include the SOP # and the title of the SOP.
- 3. If ACS Staff will be assisting with the listed procedures, check "yes" and describe the role of the ACS staff in the performance of the procedures.

H. Description of Procedures

- 1. Provide an overview of the experimental pathways in your project.
 - An experimental pathway is a specific sequence of procedures that an animal will experience. Your project may have one pathway or many, and there may be connections from one pathway to another.
 - Create a separate row in the table for each distinct pathway that may be experienced by an animal.
 - A pathway ID is automatically assigned for each row added to the table (A, B, C etc.); if an alternate ID designation is preferred (1, 2, 3 etc. or other), the Pathway ID may be edited; if creating alternate IDs, ensure that they are used consistently throughout this section, as pathways IDs are related to questions H.2., H.8 and H.9 as well.
 - Create a separate row for breeding, and ensure to record which other pathways will use bred animals in the "connections to other pathways and early endpoints" column.

- In the "sequence of procedures column", summarize the series of events experienced by an animal:
 - Include non-invasive steps such as growth, aging, and procedure recovery, as well as euthanasia or release
 - Provide detailed descriptions of the procedures below in H.2
 - Provide relevant SOP numbers here to aid in cross-referencing.
- In the "connections to other pathways and early endpoints column", describe situations where an animal will be transferred between pathways or may not experience the complete sequence of procedures.
- Experimental timelines and other diagrams are encouraged and may be attached as supporting documents below using the upload feature.
- For reference, see detailed examples of various animal pathways provided in the application, click on *See examples*.
- 2. Describe all procedures or techniques performed by your students and/or teaching team on <u>live</u> animals.
 - This question has two parts: part a. covers standardized procedures and part b. covers labspecific or other procedures.
 - You may need to access the <u>Approved SOP Library</u> to review the standardized SOPs available.
 - Facility and husbandry procedures are covered in Section G, <u>do not</u> include them here.
 - Euthanasia procedures are covered in Section K, <u>do not</u> include them here.
 - For field studies, include observation events in H.2.b.
 - a. Standardized procedures:
 - These are standardized procedures performed on live animals which are detailed in UVic SOPs.
 - Choose all that apply to your project from the list provided.
 - **Important**: To select a standardized procedure, click on *Select standard procedure* to open the drop-down list (procedures are listed first by animal, then procedure, and then SOP#).
 - Scroll down the list and select the appropriate procedure, the title and SOP# will auto fill to the row.
 - Each standardized procedure selected has additional questions to answer:
 - i. Are there exceptions or lab-specific modifications to the procedure as written in the SOP for any of your experimental pathways?
 - If so, provide details in the text box provided when you select yes.
 - ii. Indicate the category of welfare impact for this procedure.
 - Formerly called "categories of invasiveness".
 - If you are unsure, review the linked <u>CCAC document</u>, many examples are provided.
 - iii. What is the maximum number of times, with what frequency and over what total duration will a single animal experience this procedure?
 - Provide details on the number of times per day, and over how many days an animal will experience this procedure.
 - iv. Which experimental pathways make use of this procedure?
 - See pathway IDs provided above in H.1
 - Example response: "This procedure is used in pathways A, C and F."
 - v. Who will perform this procedure?

- Teaching team members listed in Section A of the AUP application will show here in the list.
- \circ $\,$ Select a team member by checking the box beside their name.
- By selecting either specific team member(s) or selecting students, you are confirming that they have the appropriate training to conduct the procedure.
- You can verify training by clicking on the profile link beside a team member's name and reviewing the completed ACS training (all verified training is listed under the training tab).
- vi. Provide any other relevant procedural details that are not included in the responses above or in the SOP.
- b. Lab-specific and other procedures
 - Detail all lab-specific or other procedures performed on live animals here, in the order they will be performed.
 - These will be procedures referenced in H.1 that have not already been listed in H.2.a above.
 - Click +Add new to add a procedure
 - SOPs are an excellent way of standardizing and refining procedures, facilitating training, and expediting AUP submissions contact <u>animalethics@uvic.ca</u> for more information and guidance on how to develop lab-specific SOPs.
 - Each procedure row has several questions:
 - i. Provide a procedure name (keep brief and specific).
 - ii. SOP approval status.
 - \circ $\;$ Indicate whether there is an SOP for this procedure or not.
 - If so, indicate the status: ACC approved, new SOP under review by the ACC or an amended SOP under review by the ACC.
 - If you have an SOP#, provide it where indicated.
 - If the status is approved, this is all that is necessary. For any of the other options, provide a summary of the procedure.
 - iii. Indicate the category of welfare impact for this procedure.
 - Formerly called "categories of invasiveness".
 - If you are unsure, review the linked <u>CCAC document</u>, many examples are provided which will help you assess the welfare impact.
 - iv. What is the maximum number of times, with what frequency and over what total duration will a single animal experience this procedure?
 - Provide details on the number of times per day, and over how many days an animal will experience this procedure.
 - v. Which experimental pathways make use of this procedure?
 - See pathway descriptions provided above in H.1, list all that apply.
 - Example response: "This procedure is used in pathways A, C and F."
 - vi. Who will perform this procedure.
 - Teaching team members listed in Section A of the AUP application will show here.
 - Select a team member by checking the box beside their name.
 - By selecting either specific team member(s) or selecting students, you are confirming that they have the appropriate training to conduct the procedure.
 - You can verify training by clicking on the profile link beside the team member's name and reviewing the completed ACS training (verified training is listed under

the training tab).

- vii. Provide any other relevant procedural details that are not included above responses or in the SOP.
- 3. Are you withholding anesthesia within any experimental pathway where anesthesia would normally be required?
 - It is expected that appropriate anesthesia is provided for procedures that cause pain.
 - If yes: If your project requires withholding (not giving) anesthesia, you must provide a scientific justification to the ACC.
 - If no: If you are not going to be withholding anesthesia, provide a very brief description of anesthesia use.
- 4. Are you withholding analgesia within any experimental pathway where analgesia would normally be required?
 - It is expected that appropriate analgesia is provided for procedures that cause pain.
 - If yes: If your project requires withholding (not giving) analgesia, you must provide a scientific justification to the ACC.
 - If no: If you are not going to be withholding analgesia, provide a very brief description of analgesia use.
- 5. Scientific endpoints
 - a. Describe the scientific and cumulative endpoints for each experimental pathway in your project.
 - A scientific endpoint is the earliest point at which the stated objective of the scientific activity will be reached. This could be a terminal procedure, an age, a set time after initiating the experiment, achievement of values of a biological variable, etc. For reference, in the PDF version of the teaching application, the terminology used for this was "experimental endpoints".
 - See <u>CCAC guidelines: Identification of scientific endpoints, humane intervention points,</u> <u>and cumulative endpoints: section 2.1.1</u> for guidance on determining endpoints.
 - Include maximum age, number of matings and births, experimental duration, and total time housed in animal care facilities.
 - Include maximum number of classes and student interactions.
 - If animals are reused for multiple protocols or donated from another source, describe their previous experiences.
 - b. Are your chosen endpoints consistent with CCAC guidelines?
 - If your endpoints are not consistent with CCAC guidelines, you must provide a scientific justification to the ACC.
- 6. Describe signs, symptoms, behaviours, measurements, etc. that will initiate humane intervention points and describe the interventions.
 - See <u>CCAC guidelines: Identification of scientific endpoints, humane intervention points, and cumulative endpoints: section 2.1.2</u> for definitions and guidance on choosing humane intervention points.
 - Interventions may include medications, additional health supports, euthanasia, etc.
 - Include details for breeding animals, if applicable.
 - Attach supporting documentation such as morbidity scoring charts, templates, assessments, rubrics, etc. using the upload button below the text box.

- For reference, a list of signs/symptoms and human interventions are provided in the application, click on *See examples*.
- Indicate what treatments will be authorized, by whom they will be authorized and undertaken, and how that decision will be made.
- 7. Animal welfare assessment
 - a. Describe your plan for monitoring and assessing the welfare of <u>animals in teaching activities</u>.
 - For further information on welfare assessment see <u>CCAC guidelines: Animal welfare</u> <u>assessment</u> and <u>CCAC guidelines: Wildlife, section 11</u>.
 - Welfare assessment can be combined with other monitoring or experimental activities.
 - Include details on who is responsible, frequency/duration of monitoring, what is assessed, and how, where and by whom assessment data will be recorded.
 - Checklists or templates including species-specific welfare parameters and monitoring points are encouraged, these may be uploaded via the upload button below the text box.
 - Welfare assessment plans for <u>breeding or stock animals</u> must be provided separately in part c. below.
 - The ACS veterinarian and technical staff can assist with the development of an animal welfare assessment plan.
 - b. Is your animal welfare assessment plan for teaching animals consistent with CCAC guidelines?
 - If animal welfare assessment plan for experimental animals is <u>not</u> consistent with CCAC guidelines, you must provide a scientific justification to the ACC.
 - c. Describe your plan for monitoring and assessing the welfare of breeding and/or stock animals.
 - See <u>CCAC guidelines: Animal welfare assessment.</u>
 - Welfare assessment can be combined with other monitoring or teaching activities.
 - Include details on who is responsible, frequency/duration of monitoring, what is assessed, and how, where and by whom assessment data will be recorded.
 - Checklists or templates including species-specific welfare parameters and monitoring points are encouraged, these may be uploaded via the upload button below the text box.
 - The ACS veterinarian and technical staff can assist with the development of an animal welfare assessment plan.
 - d. Is your animal welfare assessment plan for breeding and/or stock animals consistent with CCAC guidelines?
 - If animal welfare assessment plan for breeding and/or stock animals is <u>not</u> consistent with CCAC guidelines, you must provide a scientific justification to the ACC.
- 8. List anticipated complications and the expected rates on incidence (%) within each animal group.
 - The institutional veterinarian must be notified of interventions, including if euthanized for a humane intervention point.
 - Provide a separate row in the table for each group of animals that may experience each complication at different rates.
 - Be as specific as possible when describing anticipated complications.
 - Provide separate estimates for different animal types: breeding, stock, teaching and by-catch animals by adding table rows for each type.
 - Examples of complications related to experiments and unrelated to experiments are provided in the application. Click on *See examples* to open the list.
 - Include health conditions that are purposefully induced.
 - This number can be estimated based on your experience, from data in the literature,

Updated October 2024

experience of ACS staff members or the veterinarian, or other means.

- The Expected % column should only include complications that will be observed and reported <u>within this protocol</u>. Use the Comments column to provide rates expected after release, transfer, or adoption, if applicable.
- 9. What is the expected mortality (%) for each group of animals in this protocol?
 - Mortality <u>includes</u> animals found dead or euthanized as a humane intervention point.
 - Mortality <u>does not include</u> animals euthanized at scientific endpoints, for colony size management or for genotype generation.
 - Every mortality must be reported to the institutional veterinarian, including if euthanized for a humane intervention point <u>(see CCAC guidelines on: Endpoints, section 2.2.3)</u>
 - The Expected % column should only include mortality that will be observed and reported <u>within this protocol</u>. Use the Comments column to provide rates expected after release, transfer, or adoption, if applicable.
 - Include separate mortality rates for teaching, breeding, stock animals and by-catch if applicable.
 - For field studies, each mortality should receive a post-mortem to determine cause of death
- 10. Will any animal experience more than one Category D or E welfare impact procedure in its lifetime?
 - Category D: Experiments which cause moderate to severe distress or discomfort.
 - Category E: Procedures which cause severe pain near, at or above the pain tolerance threshold of anesthetized conscious animals.
 - If you are unsure, review the linked <u>CCAC document</u>, for explanations and examples.
 - If any animal will experience more than one Category D or E welfare impact procedure in its lifetime, choose *yes* and provide a scientific justification.

I. Refinements

- 1. Are medical or supportive interventions permitted based on veterinary consultation?
 - If yes, in all situations, then no further explanation is required.
 - If there are situations in which medical or supportive interventions <u>may not</u> be allowed, or if <u>no</u> medical or supportive interventions may be allowed at all, then a scientific justification for withholding (not allowing) these interventions must be provided.
- 2. Are there limitations on the provision of species appropriate environmental enrichment?
 - Species-appropriate environmental enrichment refers to standard cage/tank enrichment.
 - See <u>Animal Care Services Normal Housing Parameters</u> and <u>Environmental Enrichment Options</u> for additional information.
 - If there are situations in which species appropriate environmental enrichment <u>may be</u> limited (Yes and No) or is fully limited (Yes), then a scientific justification must be provided.
 - If there are no limitations (No) on providing species appropriate environmental enrichment, then no further explanation is required.
- 3. Will normally group-housed animals (mice, rats and many aquatic species) be housed alone for any reason?
 - If normally group housed animals <u>will never be housed alone</u> for any reason (No), no further explanation is required.
 - If normally group housed animals may be housed alone (Yes and No) or will be housed alone (Yes), then a scientific justification is required.

- 4. Will you be housing animals outside of designated animal facilities (BWC, MSB, OAU and Petch Saltwater) for more than 12 hours?
 - If animals <u>will never be housed outside</u> of designated animal facilities for more than 12 hours (No), no further explanation is required.
 - If there are situations where animals may be (Yes and No) or will be housed outside of designated animal facilities for more than 12 hours (Yes), then scientific justification and additional information must be provided.
- 5. Describe any additional refinements.
 - Refinement refers to any "modifications to husbandry or experimental procedures that minimize pain and distress for an animal" and any "welfare-enhancing changes [i.e., environmental enrichment] made to the animal's living areas".
 - For more information on refinement, see the <u>CCAC website: The Three Rs Replacement,</u> <u>Reduction, Refinement.</u>
 - For field projects include refinements to minimize impact on individual animals, populations, and the natural environment.

J. Drugs, chemicals, biologicals, anesthetic, and devices

- 1. Provide details on all substances administered to animals in the three categories below
 - Do not include agents used for euthanasia here (Section J); list and provide details on agents used for euthanasia in <u>Section K</u> only.
 - If the relevant agent, solvent/diluent, or route is not included in the drop-down menu, type to enter a custom agent, solvent/diluent or route and press enter to add.
 - **Important**: A Health Canada exemption is required to conduct studies with controlled substances; see Section L.1. for guidance and reporting on the use of controlled substances.
 - The Animal Care Services <u>Formulary</u> and <u>Guidelines for controlled substances acquisition and</u> <u>use</u> are helpful resources for this question.
 - a. Pre-anesthetic, anesthetic, and analgesic agents.
 - List all drugs that will be used to minimize pain, distress or discomfort.
 - Click +*Add new* to add rows to the table.
 - Provide all requested information for each agent: species, agent (see drop down options or type in custom), dosage, solvent/diluent (if applicable), volume, route (see drop down options), frequency (how often) and/or duration (how long), purpose (keep this very brief).
 - b. Clinical drugs (including antibiotics).
 - List all pharmaceuticals that may be used to treat clinical signs (e.g., antibiotics, artificial tears, subcutaneous fluids, antiseptics, etc.).
 - Click +Add new to add rows to the table.
 - Provide all requested information for each agent: species, agent (see drop down options or type in custom), dosage, solvent/diluent (if applicable), volume, route (see drop down options), frequency (how often) and/or duration (how long), purpose (keep this very brief).
 - c. All other substances administered to animals.
 - This category includes drugs, chemicals, and biologicals (including placebos, viruses, tumors, antigens etc.) that are administered to animals for teaching purposes.
 - Click +Add new to add rows to the table.
 - Provide all requested information for each agent: species, agent (see drop down options or type in custom), dosage, solvent/diluent (if applicable), volume, route (see drop down options), frequency (how often) and/or duration (how long), purpose (keep this very brief). Updated October 2024

- 2. How will you ensure that the injectable agents listed above (J.1. a. c.) are sterile before use?
 - In the text box, describe your processes for ensuring injectable agents listed are sterile before use.

K. Euthanasia

- 1. Describe the methods of euthanasia used for each animal species included in this protocol.
 - Refer to the <u>CCAC Euthanasia Guidelines</u> and <u>Frequently Asked Questions</u> for information on acceptable versus conditionally acceptable euthanasia methods, or contact the UVic Veterinary Director (acsvet@uvic.ca) for guidance.
 - See also <u>CCAC Guidelines: Wildlife, section 13</u> for additional guidance specific to field research.
 - A Health Canada exemption is required to conduct studies with controlled substances; see Section L.1.
 - a. Euthanasia methods designated acceptable by the CCAC (guidelines p.12-16).
 - Methods which are simple to perform and consistently produce death with minimal pain and distress.
 - For each acceptable method listed in the table, provide:
 - i. Species/age
 - ii. SOP# of euthanasia SOP to be used
 - iii. Primary method of euthanasia
 - iv. Follow-up method used to confirm or ensure death
 - v. Agent administered (dosage, solvent/diluent, volume)
 - vi. Additional method description
 - vii. Team members designated and trained to perform the procedure
 - b. Euthanasia methods designated conditionally acceptable or granted special approval (guidelines p. 17-21).
 - Methods requiring scientific justification and trained personnel available to carry out the procedure.
 - For each acceptable method listed in the table, provide:
 - i. Species/age
 - ii. SOP# of euthanasia SOP to be used
 - iii. Primary method of euthanasia
 - iv. Follow-up method used to confirm or ensure death
 - v. Agent administered (dosage, solvent/diluent, volume)
 - vi. Additional method description
 - vii. Team members designated and trained to perform the procedure
 - viii. Scientific justification for use of the conditionally acceptable method.
- 2. Indicate method(s) of final disposition of animals that <u>will not</u> be euthanized.
 - Choose <u>all that apply</u> from the checklist provided.
 - If not listed, choose other and provide detail.

L. Controlled substances and safety hazards

- 1. Will controlled substances be used in this study?
 - A Health Canada exemption is required to conduct studies with controlled substances (e.g., buprenorphine, pentobarbital, ketamine butorphanol, etc.).

- For a complete list of controlled substances, refer to the <u>Controlled Drugs and Substances</u> <u>Act.</u>
- If a controlled substance will be used, upload your controlled substance exemption(s) issued by Health Canada.
- Guidance documents: <u>Guidelines for Controlled Substances Acquisition and Use</u> and <u>Health</u> Canada: Exemptions from provisions of the Controlled Drugs and Substances Act (CDSA)
- 2. Will hazardous agents be used in this project?
 - Hazardous agents include infectious or biological agents, cytotoxic drugs, carcinogens, radioisotopes, cells, etc.
 - a. Indicate from the checklist which hazardous agents will be used in animals.
 - Choose all that apply.
 - b. Indicate where animals will be housed after administration of hazardous agents.
 - If animals will be housed in an investigator/teaching lab or other location, provide the building and room number in the space provided.
 - Reminder: researchers must ensure that animal cages are clearly labeled with housing details at all times.
 - c. Describe potential health risks posed by <u>hazardous agents</u> and the control measures that will be used to reduce these risks.
 - In the table provided, include all hazardous agents listed in Section J and Section K.
 - If an agent is not included in the drop-down menu, type to enter a new agent.
 - For each agent, describe health risks to humans working with animals (both team members and ACS staff) and risks to other animals in the facility.
 - For each agent used, detail all control measures, including:
 - o descriptions of disposal methods
 - personal protection equipment (PPE) required
 - measures to minimize impacts on the environment and natural populations
 - o other relevant control measures.
 - For each agent used, upload the vendor-supplied Safety Data Sheet (SDS) (i.e., no more than 3 years old).
 - d. Will cells be injected or implanted into animals?
 - Examples of cells that may be injected or implanted into animals may include immune cells, tumors, pancreatic cells, organ transplants etc.
 - If yes, the ACC must assure that cell lines introduced into animals contain no pathogens that affect either humans <u>or</u> species housed in the facility. For instance: ATCC cell lines are sometimes tested for human pathogens, but not normally for rat or mouse pathogens.
 - The ACC is looking for strong evidence that the cell lines being used provide no hazard to the health of humans or other animals. Such evidence could include serology reports from animals in which the cells were used previously, repeated use of the cell lines without untoward effects, appropriate veterinary certificates from institutions where such lines have been used extensively. The ACS veterinarian can provide information on specific testing available for cell lines (both human and animal).
- 3. Describe potential <u>hazardous situations</u> and the control measures that will be used to reduce risk.
 - Include all hazardous situations that pose potential health risks to humans, animals, or the

environment.

- Examples of hazardous situations include animal handling hazards (scratching, biting or attacks), boating hazards (drowning), field hazards (tripping or falling), radiation exposure etc.
- For each hazardous situation, detail all control measures (i.e., how you will mitigate the risk).
- 4. Indicate which safety requirements are applicable to your research and confirm status.
 - See <u>Occupational Health</u>, <u>Safety & Environment Research safety</u> for information and guidance regarding boating, scientific diving and fieldwork safety requirements.
 - Add new rows as necessary to indicate additional research safety programs relevant to the project.

M. List of uploaded documents

- 1. This section lists all the document uploads in the application and provides:
 - A hyperlink to the section of upload (if applicable)
 - File name and date of upload
 - Option to remove the upload.
- 2. Add additional uploads here that are not linked elsewhere in the application (e.g., appendices, supporting research papers, diagrams, etc.)
 - For AUPs that have completed their 4-year cycle and are starting as new, upload PDF annual review form(s) as necessary.
- 3. **Do not** upload SOP attachments for SOPs referenced in Section G, H, or K. Approved SOPs should be referenced to the SOP number on the <u>Approved SOP Library</u> and new or amended SOPs must be submitted via email to <u>animalethics@uvic.ca</u> for ACC review.
 - If a new SOP or amendments to an approved SOP are proposed outside of the normal review schedule for an aligned AUP, the AUP must also be provided to the ACC as part of the application review package; SOPs will not be reviewed without an accompanying AUP.

N. Signatory/departmental sign-off

- 1. Signatory sign-off
 - Indicate the Chair/Director/Dean or their designate to provide departmental sign-off on the application for submission.
 - To select a Chair/Director/Dean start typing their name and then select the individuals' name from the drop-down list.
 - By signing off the application, the signatory is affirming appointment status of the Principal Investigator (PI).

PI Declaration and Submission Process

- 1. Once all sections of the application are complete and the signatory has been selected in section N., the PI may submit the application.
 - The PI will be asked to affirm the following prior to submission by clicking *I agree*:
 - I have read this application, and it is complete and accurate.
 - I will conduct this research in accordance with the University of Victoria (UVic) and Canadian Council on Animal Care (CCAC) guidelines, regulations, polices and procedures governing the ethical conduct of research involving animals.
 - I will not carry out research without approval from the Animal Care Committee (ACC).

- I will renew ACC approval of the Animal Use Protocol (AUP) annually to continue this research.
- I will submit an appropriate amendment to the AUP if I need to modify my research.
- I will supervise all students and/or staff involved in this research.
- To submit the application, the PI must click *Submit the application* which will notify the signatory that their sign-off is required.
- 2. Signatories will be prompted to sign in to RAIS to review and sign-off on the application.
- 3. After sign-off by the signatory, the application is submitted directly to the Animal Ethics Office via RAIS.
- 4. The AEL will confirm that the application is complete and will then forward the application for ACC review at the next meeting date. If not complete, the AEL will return the application to the PI to update missing information. The PI will then re-submit the application to the AE Office.
- 5. Once reviewed, the ACC will provide a Notice of Review to the PI detailing whether the application was approved, approved with revisions, or not approved.