

# Animal Research Protocol Guide (IACUC RAP Manual)

## Introduction

This comprehensive, illustrated manual details requirements to create an animal research protocol at UC and navigation and use of UC's animal research protocol website, [IACUC Research Administration Portal \(RAP\)](#). If you are viewing this document electronically, you can click any title in the Table of Contents to quickly jump to a specific section.

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## Welcome to the UC Animal Care and Use Program

The University of Cincinnati Animal Care and Use Program (ACUP) is responsible for the regulatory oversight and veterinary care of all research activities that involve live, vertebrate animals at the University of Cincinnati. The program is comprised of 2 units: the Animal Regulatory Compliance Office (IACUC office), and Laboratory Animal Medical Services (LAMS).

## Getting Started

### Get Your Training and IACUC/AOPS RAP Access

ACUP onboarding training includes both IACUC and LAMS trainings, as well as IACUC/AOPS RAP and facility access.

### ACUP Onboarding Steps

1. Principal Investigator (PI) or PI proxy must complete [ACUP Training Request form](#) (trainee M# needed). This form is a “one-stop shop” that collects information needed to assign appropriate training, create an IACUC/AOPS RAP profile, and provide protocol and facility access. It is important that this information is filled out completely and accurately. **Incorrect or incomplete information may result in delays in starting your research.**
2. Once Animal Training receives the form, an IACUC/AOPS RAP profile will be created and an email will be sent to schedule required training. Training requirements are briefly summarized below and additional details are provided in the [ACUP Training Policy](#) and on [Bearcats Landing](#).
  - a. Requirements prior to joining and IACUC protocol:
    - **Online Training Courses via [Collaborative Institutional Training Initiative \(CITI\)](#):** The modules in CITI give an overview of how to work with an IACUC basics on what you need to know to work with your species; the three R's-replacement, reduction, and refinement; identifying and reducing pain and distress; and surgery.
    - **IACUC Orientation:** This session is typically scheduled every other Wednesday alternating morning and afternoon and will familiarize you with your roles and responsibilities as an animal researcher.
    - **Occupational Health and Safety for Animal Handlers:** This program applies to all faculty, staff, and students who have direct or indirect contact with research animals. The species of animal and associated hazards encountered in the workplace determine what type of health assessment and safety training each person will receive. You will be sent a link to [Compliance Training website \(CPD\)](#) to complete the Health Surveillance Assessment. **You must have occupational health clearance prior to working with/or near animals. Must be completed prior to LAMS facility orientation and LAMS animal skills.**
    - **LAMS Facility, Satellite, or Field Orientation:** This session is an introduction to animal facilities and laboratories where animal use occurs, including introduction to animal care and use Standard Operating Procedures.
    - **LAMS Animal Skills (all species except USDA large animals):** This hands-on class includes training on the handling and restraint of rodents, basic injections and euthanasia methods.
  - b. After joining the protocol, before performing specific procedures
    - CSI/LAMS USDA Large Animal Procedure/Surgical Training
    - Principles of Surgery
    - LAMS Hazard Training
    - Animal Acquisition
3. Training renewal (every 3 years)
  - a. **Occupational Health and Safety for Animal Handlers:** Enrollment in Occupational Health and Safety Program for Animal Research requires renewal every 3 years. You must complete the Health Surveillance Assessment in CPD before your occupational health clearance expires.
  - b. **CITI training:** Working with the IACUC

## Prepare an IACUC Protocol

Preparing a research project submission for IACUC review can be a complex process. In order to streamline the process and hopefully avoid any undue burden, it is helpful to review a couple of basic steps:

### **1. Consult the Laboratory Animal Medical Services (LAMS) and the Attending Veterinarian.**

The IACUC strongly recommends that applicants consult with LAMS and Veterinarian prior to application submission. LAMS staff will be able to walk you through what is available to you in our facilities and how we may be able to accommodate your study.

The Attending Veterinarian is responsible for oversight of the well-being and clinical care of the laboratory animals. The veterinarian will review with you the design of your study, and assist you with information regarding animal care, housing, animal procedures and surgery, pain and distress, anesthesia and analgesia, euthanasia and any other questions that you may have.

### **2. Begin the process to training completion.**

Direct all personnel listed to make sure that all mandatory training has been completed. Please contact the IACUC office for guidance on specific required training. This is important to complete at the time of protocol submission. Incomplete training can hold up study approvals.

### **3. Write your Animal Research Protocol in IACUC RAP.**

Design your study and enter it in RAP.

The protocol form template includes questions on:

- a) Project title, Principal Investigator, key personnel
- b) Project information and specific aims, including lay summary and harm/benefit
- c) Justification for why live animals must be used and justification for the species
- d) Literature search and consideration of alternatives to animal research (3Rs-replace, refine, reduce)
- e) Experimental/study design: a complete, detailed description of all procedures including timelines
- f) Animal number justification
- g) Pain and distress information as well as measures to minimize pain and distress
- h) Animal husbandry (how animals will be cared for) and housing of animals
- i) Anticipated effects of procedures or administered substances
- j) Treatments, exposures, and biosafety levels
- k) Clear and concise humane endpoints and euthanasia

## IACUC RAP Navigation

Log in to the IACUC Research Administration Portal (RAP) website (<https://acup.uc.edu/IACUC/>) using your UC credentials. **The most compatible web browsers are Firefox or Google Chrome.**

The screenshot displays the IACUC RAP website interface. At the top, a red header bar contains the University of Cincinnati logo on the left and the text "Hello, Principal Investigator 1" on the right. Below this is a black navigation bar with a double arrow icon and the following tabs: Dashboard, AOPS, IRB, IACUC (which is highlighted), and a Help Center link. Underneath the black bar is a light grey bar with the following links: Submissions (highlighted), Standard Library, Concerns, Facilities, Reports, and Help Center. The main content area is titled "Submissions" and features a search bar on the right. On the left side of the main area, there are three dark grey buttons: "Create Concern", "Create Research Team", and "Create Protocol". The central part of the screen shows a table with the following tabs: Research Teams, In-Review, Active, Archived, and a menu icon. The "In-Review" tab is selected. Below the tabs, there is a "Filter by" section with a dropdown menu set to "Name" and a search input field with the placeholder text "Enter text to search for". To the right of the search field are buttons for "+ Add Filter" and "x Clear All". The table itself has three columns: "Name", "PI First Name", and "PI Last Name". The first row of data shows "Principal Investigator 1 Team" in the Name column, "Principal" in the PI First Name column, and "Investigator 1" in the PI Last Name column. At the bottom of the table, it indicates "1 items" and a pagination control showing "page 1 of 1" with a "25 / page" dropdown.

Use the primary navigation options (black) at the top of your screen to switch to different areas of the website:

**>> (double arrow):** use this to find your location on the website, or navigate back 1 or more pages

**Dashboard:** see all pending items assigned to you that are awaiting review/action

**IRB:** human research protocol submission and management (separate log in)

**IACUC:** animal research protocol submission and management (the focus of this tutorial)

**AOPS (Animal Operations):** LAMS vivarium operations and services

Use the secondary navigation options (light grey) at the top of your screen to access different sections:

**Submissions:** a list of all your IACUC protocols

**Standard Library:** a list of UC IACUC pre-approved substances and procedures

**Concerns:** review all concerns relating to your IACUC protocol(s)

**Facilities:** a list of all UC facilities (including closed/retired sites)

**Reports:** administrative reports for IACUC Office use only

**Help Center:** All ACUP policies and guidelines, forms and signs, and IACUC RAP tutorials

Finally, there are 3 action buttons (dark grey) on the left side of your screen:

**Create Concerns:** review concerns for all of your IACUC protocols. **Not currently in use.**

**Create Research Team:** create a new list of researchers involved with your IACUC protocols

**Create Protocol:** create a new IACUC protocol

## Research Teams

The Research Team space belongs to your lab and is where all of your documents can be found. You will need to create a Research team prior to drafting any protocols, procedures and substances.

A Research Team is a list of personnel who have permission to read on the IACUC protocol when logged into the RAP website. The research team **must** include all personnel that will have an active role on your protocol, but can also include internal collaborators, administrators, lab managers who may not have an active role on the animal use protocol.

Principal Investigator (PI) or approved PI proxy have the responsibility of managing the Research Team by ensuring the list is current (see [Edit an Existing Research Team](#)).

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Hello, Principal Investigator 1 ▾

» Dashboard AOPS IRB IACUC

Submissions Standard Library Concerns Facilities Reports Help Center

Active

Next Steps

Edit Research Team

Create Protocol

Create Procedure

Create Substance

Send Training Expiration Reminder

TEAM00000167

### Principal Investigator 1 Team

Principal investigator: Principal Investigator 1  
Phone:  
E-mail:

Submissions Procedures Substances History ...

Filter by ? ID ▾ Enter text to search for 🔍 + Add Filter ✕ Clear All

| ID          | Name                | ▼ Date Modified    | State     | Submission Type          |
|-------------|---------------------|--------------------|-----------|--------------------------|
| 25-03-24-02 | Animal Use Protocol | 7/8/2026 5:05 PM   | Approved  | New Protocol Application |
| 25-03-24-01 | Short title         | 3/24/2025 10:10 AM | Discarded | New Protocol Application |

2 items ◀ page 1 of 1 ▶ 25 / page

(IACUC - Research Team)

In contrast, the Protocol Team Members is a specific list of personnel in the IACUC protocol who are approved to perform hands on animal work and/or order animals. Protocol team members must be reviewed and approved on the IACUC protocol and can only be edited by submitting a protocol amendment, which is subject to IACUC review and approval. More information on this process can be found in the [Protocol Team Members](#) section of this tutorial.

## Create a New Research Team

1. Click on the “IACUC” tab in the top navigation menu, then click the “Research Teams” sub-tab.
2. Click the “Create Research Team” button.
3. Answer all form questions. Research Team names usually include PI’s last name (e.g. Doe lab).
4. Select the “+ Add” button on Question 3 to add personnel. **Do not add PI to team members list.**
5. If your research group works with more than 1 species, do not add a default team species.
6. Select the “Finish” button to save your changes and close the form.

Creating New: Research Team [Go to forms menu](#) [Help](#)

### Research Team Information

1. \* Research team name:

2. \* Principal investigator:

3. Team members: ?

+ Add

| Name                          | Role | Involved in Animal Handling | Authorized To Order Animals | E-mail | Phone |
|-------------------------------|------|-----------------------------|-----------------------------|--------|-------|
| There are no items to display |      |                             |                             |        |       |

4. Team default species: ?

[Exit](#) [Save](#) [Finish](#)

## Edit an Existing Research Team

1. Click on the “IACUC” tab in the top navigation menu, then click the “Research Teams” sub-tab.
2. Select the name of your Research Team, then select the “Edit Research Team” button.
3. Edit the Research Team name in Question 1 and add/remove Research Team members in Question 3.
  - a. Use the +Add button to add a team member
  - b. Use the red circle with x to remove a team member
4. Select the “Finish” button to save your changes and close the form.

Editing: RT-01-02-03-04 [Go to forms menu](#) [Print](#) [Help](#)

### Research Team Information

1. \* Research team name:

2. \* Principal investigator:

Principal Investigator  [...](#) [✕](#)

3. Team members: ?

+ Add

| Name                     | Role        | Involved in Animal Handling | Authorized To Order Animals | E-mail             | Phone             |
|--------------------------|-------------|-----------------------------|-----------------------------|--------------------|-------------------|
| Research Personnel #1    | Study Staff | yes                         | no                          | researcher1@uc.edu | <a href="#">✕</a> |
| Administrative Assistant | Study Staff | no                          | yes                         | adminasst@uc.edu   | <a href="#">✕</a> |

4. Team default species: ?

Mouse  [...](#) [✕](#)

[Exit](#) [Save](#) [Finish](#)

## Create a New or Triennial IACUC Protocol

We strongly recommend following these basic guidelines when creating an IACUC protocol:

- All required form fields are denoted by a **red asterisk (\*)**.
- Complete each form going page by page using the “Continue” button, to ensure no section is missed.

### Basic Information

The screenshot shows the 'Creating New: IACUC Submission' form. The left sidebar has a menu with 'Basic Information' selected. The main content area is titled 'Basic Information' and contains five numbered questions, each with a red asterisk indicating it is required. Question 1 is 'Title of protocol:' with a text input field. Question 2 is 'Short title:' with a text input field and a help icon. Question 3 is 'Summary of research:' with a large text area and a help icon. Question 4 is 'Principal investigator:' with a dropdown menu showing 'Principal Investigator' and a help icon. Question 5 is 'What is the intention of the animal protocol?' with four radio button options: 'Experimental Research', 'Field Research', 'Holding Protocol', and 'Teaching'. Below the radio buttons is a 'Clear' link. At the bottom right are three buttons: 'Exit' (with a red asterisk), 'Save' (with a floppy disk icon), and 'Continue' (with a right arrow icon).

Most questions in this section of the form are self-explanatory except for:

#### Question 3 (Summary of research):

- Provide a short project description using non-technical/lay terms.
- Write this section as though you are providing a press release to a newspaper.
- Include the following information:
  - What central question is the protocol answering?
  - What is the value to humans, animals, the environment, or advancement of knowledge?
  - **Triennial submissions:** provide a brief 1-3 sentence summary of project progress over the last 3 years.

#### Question 5: Protocol Intention

- If your protocol includes both field and experimental research, select “Experimental Research” then create a “Field Research” experiment (see [Experiments](#)).

### Experimental Research Protocol Addition

Select “Yes” or “No” based on your research needs. **If you answer “Yes”, you must add “Animal Production” to the [Experiments](#) section to account for animals bred and culled.**

The screenshot shows the 'Experimental Research Protocol Addition' form. The left sidebar has a menu with 'Basic Information & Funding' expanded, showing 'Basic Information' and 'Experimental Research Protocol Addition' (which is selected). The main content area is titled 'Experimental Research Protocol Addition' and contains one numbered question with a red asterisk: 'Will the protocol include breeding?'. Below the question are two radio button options: 'Yes' and 'No', followed by a 'Clear' link. At the top of the form, there is a header bar with 'Validating: 01-02-03-04', a 'Go to forms menu' link, a 'Print' button, and a 'Help' icon.

### Protocol Team Members

Protocol Team Members should include all personnel who are performing hands on animal work and/or ordering animals for the IACUC protocol. The list automatically populates from your Research Team List, but you can add or delete personnel as needed. All protocol personnel must complete training outlined in the [ACUP Policy 101](#) (also accessible in IACUC RAP on the Help Center tab).

### Add Personnel to the Protocol Team Members List

1. Select the “+ Add” button to open the Add Study Team Member form in a popup window.
2. Begin typing the first or last name of the individual you wish to add. You may also press the ellipsis “...” button to scroll through a list of personnel in the RAP database. See [Viewing and Scrolling Lists Using Ellipses \(...\)](#) for more details.
  - a. If you cannot locate an individual in the RAP database, send an email to [animaltraining@uc.edu](mailto:animaltraining@uc.edu) with the individual’s UC username (6+2) and M#.
3. Provide answers for Questions 2 through 4 based on the individual’s responsibilities on the IACUC protocol. Select “OK and Add Another” to add additional personnel. When you are finished, select the “OK” to close the popup window and return to the Protocol Team Members section of the protocol form.

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Validating... Comparing...

Basic Information & Funding

Basic Information

Experimental Research Protocol Addition

Protocol Team Members

Funding Sources

Experimental Design

Scientific Aims

Experiments

Editing: 01-

Protocol Team

1. Identify each

+ Add

Name Role

There are no

2. External team

+ Add

Document Name

There are no

Add Study Team Member

1. \* Select the protocol team member:

...

2. \* Does the person have an animal handling role? ?

☐ Yes ☐ No [Clear](#)

3. \* Is this individual authorized to order animals?

☐ Yes ☐ No [Clear](#)

4. \* Role in research: (check all that apply)

☐ Study Staff

☐ Co-Investigator

☐ Principal Investigator

☐ Department Business Manager

\* Required

OK OK and Add Another Cancel

### Funding Sources

This section helps the IACUC associate protocols with specific grants. You should list all external and internal funding sources (e.g. industry sponsors, government agencies, departmental funds).

### Add Funding Sources to the IACUC Protocol

1. Select the “+ Add” button to open the Add Funding Agency form in a popup window.
2. Begin typing the full name (not acronym) of the funding agency. You may also press the ellipsis “...” button to scroll through a list of funding sources in the RAP database. See [Viewing and Scrolling Lists Using Ellipses \(...\)](#) for more details.
  - a. To perform a partial search, use % as a wildcard (takes the place of 1 or more letters).
3. **If you can’t locate the funding agency in this section, [email the IACUC Office](#) with details.**
4. Sponsor’s funding ID and Grants office ID leave blank. They will be completed by the Grants office.
5. Select “OK and Add Another” to add additional funding sources. When you are finished, select the “OK” to close the popup window and return to the Funding Sources section of the protocol form.

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Validating... Comparing...

Basic Information & Funding

Basic Information

Experimental Research Protocol Addition

Protocol Team Members

Funding Sources

Experimental Design

Scientific Aims

Experiments

Procedure Personnel Assignment

Strains

Reading: 0

Funding Sources

1. Identify each

+ Add

Update

Update

Update

Update

Update

Update

Add Funding Source

1. \* Select the funding organization: ?

...

2. Sponsor's funding ID: (assigned by external sponsor) ?

3. Grants office ID: (assigned internally) ?

4. Attach files: (including any grant applications)

+ Add

Document Name Date Modified

There are no items to display

\* Required

OK OK and Add Another Cancel

## Scientific Aims

1. **Scientific aims of the research:** goals of the research (recommend bullet point list).
2. **Significance and benefits of the research:** justify the benefits to society (humans, animals, the environment, advancement of knowledge) in relation to the potential detrimental impact on the animals.
  - a) This is frequently justified from an ethical cost-benefit perspective: any animal pain, morbidity and mortality must be outweighed (or at least balanced) by the potential project benefits in terms of relevance to human/animal health, advancement of knowledge, or the good of society.

The screenshot shows the 'Scientific Aims' editing form. The left sidebar has a menu with 'Experimental Design' (containing 'Scientific Aims', 'Experiments', 'Procedure', 'Personnel', 'Assignment', and 'Strains') and 'Animal Justification' (containing 'Animal Justification' and 'Alternatives'). The 'Scientific Aims' item is highlighted. The main content area is titled 'Editing: 01-02-03-04' and 'Scientific Aims'. It contains two numbered questions: '1. \* Scientific aims of the research: ?' and '2. \* Significance and benefits of the research: ?'. Each question has a large text input box below it. At the top right of the form are links for 'Go to forms menu', 'Print', and 'Help'.

## Experiments

Add all protocol experiments to this section; experiments should be separated by specific aims/goals of the research. When you add an experiment (Question 1), you must select the applicable procedures and identify any variations. You must also specify the number of animals used in each experiment.

The screenshot shows the 'Experiments' editing form. The left sidebar has a menu with 'Research Protocol Addition', 'Protocol Team Members', 'Funding Sources', 'Experimental Design' (containing 'Scientific Aims', 'Experiments', 'Procedure', 'Personnel', 'Assignment', and 'Strains'), 'Animal Justification' (containing 'Animal Justification', 'Alternatives', 'Searches and Duplication'), 'Animal Housing and Use' (containing 'Housing and Use' and 'Disposition'), and 'Supporting Documents' (containing 'Supporting Documents'). The 'Experiments' item is highlighted. The main content area is titled 'Editing: 26-07-09-01' and 'Experiments ?'. It contains a message: 'If the procedure is not yet created: Create Procedure' and an 'Important!' note: 'Make sure you assign your new procedures to the appropriate experiments.' Below this is question 1: '1. \* Define the experiments to be used in this protocol:'. It has an '+ Add' button and a table with columns: 'Name', 'Species', 'Is USDA', 'Total', 'Pain Category', and 'Common Procedures'. The table is empty with the text 'There are no items to display'. Below the table is question 2: '2. If the experiments include survival surgery, will any single animal undergo more than one survival surgery? (include any animal that underwent surgery prior to use on this protocol) ?'. It has radio buttons for 'Yes' and 'No', and a 'Clear' link. Below this is question 4: '4. If the animal will experience more than momentary unrelieved pain and/or distress, justify. Otherwise state "No":'. It has a large text input box. At the bottom right of the form are buttons for 'Exit', 'Save', and 'Continue'.

## Experiments Question 1: Add an Experiment to an IACUC Protocol

Select the “+ Add” button in Question 1 to open the Add Experiment form in a popup window.

The screenshot shows a web interface for editing a protocol. The left sidebar has a menu with 'Basic Information & Funding', 'Experimental Design', and 'Experiments' (highlighted). The 'Experiments' section includes links for 'Scientific Aims', 'Procedure', 'Personnel', 'Assignment', and 'Strains'. The main content area is titled 'Editing: 01-02-03-04' and has a 'Go to forms menu' button, a 'Print' button, and a 'Help' button. Below the title is a section titled 'Experiments' with a question mark icon. It contains a message: 'If the procedure is not yet created: [Create Procedure](#)'. Below this is an 'Important!' note: 'Make sure you assign your new procedures to the appropriate experiments.' The first question is '1. \* Define the experiments to be used in this protocol:'. Below the question is a '+ Add' button. Below the button is a table with columns: 'Name', 'Species', 'Is USDA', 'Total', 'Pain Category', 'Common Procedures', 'Variable Procedures', and 'Variable Description'. The table is currently empty, with the text 'There are no items to display' below it.

If you answered “Yes” to the breeding question in the [Experimental Research Protocol Addition](#) section, your first experiment should be “1-Animal Production/Breeding” experiment to account for animals bred/culled.

There are 10 questions within the Add Experiment form.

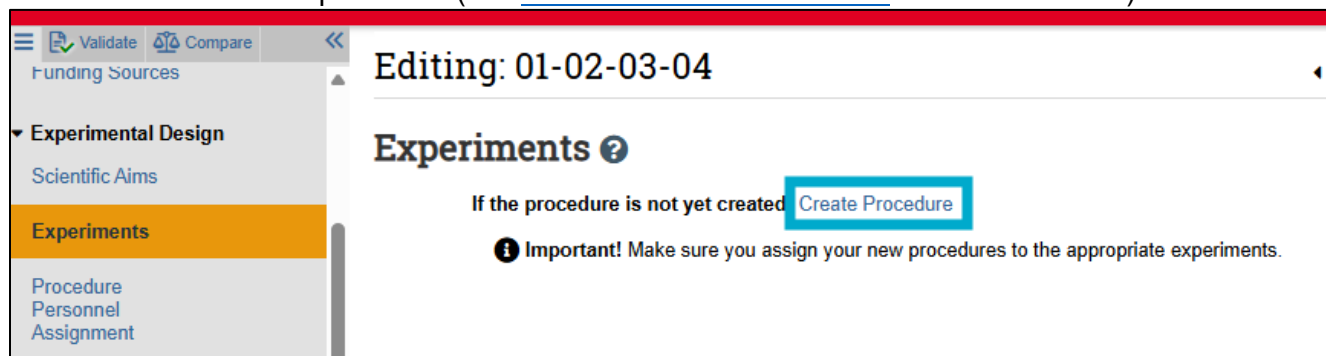
The screenshot shows a web interface for adding a new experiment. The left sidebar has a menu with 'Basic Information & Funding', 'Experimental Design', 'Experiments', 'Animal Justification', 'Animal Housing and Use', and 'Supporting Documents'. The 'Experiments' section is highlighted. The main content area is titled 'Add Experiment'. It contains five questions: 1. \* Experiment name: (text input field), 2. \* Species: (dropdown menu with 'Mouse' selected), 3. Describe the experiment: (Include justification of the purpose of the experiment): (text area), 4. Justify the number of animals to be involved in this experiment. (Justify each group size using literature citation or power analysis): (text area), 5. Select common procedures: (applied to all animals in the experiment) (dropdown menu). Below the dropdown menu is a table with columns: 'Name', 'Type', 'Version', and 'Scope'. The table is currently empty. At the bottom of the form are three buttons: 'OK', 'OK and Add Another', and 'Cancel'. A red asterisk indicates that the 'Experiment name' and 'Species' fields are required.

1. **Experiment name:** provide a short title of the experiment. Experiments should be separated by specific aims/goals of the research and numbered to facilitate cage card labelling.
2. **Species:** select the species involved in the experiment.
3. **Describe the experiment (Include justification of the purpose of the experiment):** You must provide enough information so that protocol reviewers understand what is happening to each animal.
  - See [Appendix 1: Protocol Writing Examples](#) for well-written study design examples.
  - Specific details of the individual procedures should be provided in the procedure form.

This section must include the following study design information:

- A clear, concise, sequential description of what is happening to each animal.
  - Outline of the procedures/manipulations performed on each experimental group including timing and frequency.
  - List the number of animals per group and number of groups per study. Include positive and negative controls, and if sex differences are being measured.
  - Timeline, including maximum duration of the experiment.
  - Only include animal numbers/experiments that can reasonably be performed in the next 3 years.
4. **Justify the number of animals involved in this experiment (justify each group size using literature citation or power analysis).** Justify each group size using literature citation or power analysis. Justify quantity of tissue used and/or need for pilot study (the "N").
    - [Taconic Biosciences: Animal Research Sample Size Calculation](#)
    - [Animal Research Reporting of In Vivo Experiments - Sample Size](#)
  5. **Select common procedures: We have a library of over a hundred commonly used procedures that are available as IACUC approved standards.** Begin typing the procedure name to view a list of available options. You may also press the ellipsis "... " button to scroll through a list of procedures in the RAP database. See [Viewing and Scrolling Lists Using Ellipses \(...\)](#) for more details. You can also use the % as a wildcard to search for key words (see [Easy Filtering and Searching](#) for details).

If a procedure does not appear in the list, go back to the Experiments section, and select the "Create Procedure" link at the top to add it (see [Substances and Procedures](#) section for details).



Each procedure is categorized into 1 of the following types:

- **Survival surgery:** Animals are allowed to recover from anesthesia.
  - **Major** - any surgical procedure that penetrates and exposes a body cavity or has potential to produce permanent/significant physical or physiological impairment.
  - **Minor** – any surgical procedure that does not penetrate or expose a body cavity or produces permanent/significant impairment of physical or physiological function.
- **Non-survival surgery:** Any surgical procedure in which animals are euthanized prior to recovering from anesthesia.
- **Tissue/Blood Collection:** Any tissue or fluid collection while the animal is still alive.
- **Behavioral:** Behavioral procedures are those in which animals have a conscious choice to participate (e.g. CPP, open field, running wheel without forced exercise).
- **Non-Surgical:** Any procedure that does not fit in any other category. Non-surgical procedures may have a behavioral component, but animal does not have a conscious choice to participate (e.g. forced exercise, Hargreaves, burn).
- **Substance Administration:** Any substance/agent administered to animals-including chemicals, biologicals, radioactive materials, diluents, etc.
- **Physical Restraint:** More than momentary physical restraint of an awake animal. Separate procedure is required for physical restraint greater than 10 minutes. Otherwise, the restraint must be described in its associated procedure and/or experiment.
- **Food and Fluid Restriction/Regulation:** Withholding of all or some food or water for a specific time period. Separate procedure is required for 16 or more hours of food restriction and 8 or more hours of water restriction. Otherwise, the restriction must be described in its associated procedure and/or experiment.
- **Imaging:** Separate procedure is only required if you will be performing the imaging or irradiation. Separate procedure is not required if the procedure is performed via temporary transfer.
- **Euthanasia:** Procedure that results in the humane death of an animal.

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Experiments

If the proced

1. \* Define the exp

2. If the experime

3. If the animal wi

4. \* Total number of animals used in this experiment:

5. Number of animals by pain category: (include each animal only once in the highest pain category) ?

6. Identify husbandry exceptions:

7. Describe the maximum number of procedures an animal will experience:

8. Describe expected adverse clinical signs/symptoms, frequency of monitoring, and criteria for removal from the experiment and/or euthanasia:

\* Required

OK OK and Add Another Cancel

6. **Total number of animals used in this experiment:** provide a total count.

7. **Number of animals by pain category:**

- USDA species: report each animal into the highest pain category of all performed procedures within each experiment.
  - e.g. an animal undergoing both category C and E procedures is reported in category E, but is not counted in both categories.
- Non-USDA species: report all animals in the highest pain category listed on the protocol.
  - e.g. if a protocol lists 2 experiments (pain categories D and E respectively), then all protocol animals are reported in category E regardless of performed procedures.

8. **Identify husbandry exceptions: Refer to [Husbandry Exception Guidelines](#).**

- Include the exception type, description, and justification.
- Satellite locations that store special diets must be listed in this section.
- Some behavioral procedures/stressors (e.g. chronic stress paradigms) exceptions can be combined (e.g. non-standard caging can include large, small, tilt, wet, empty, etc.).
  - Acclimation Waiver
  - Altered Light Cycle Duration
  - Enrichment Policy Waiver
  - Medicated Water
  - Observation Frequency
  - Sanitation Frequency
  - Special Diet
  - Other
  - Altered Room Temperature
  - Do Not Disturb Post-birth
  - Extended Weaning
  - Non-standard Caging
  - Social Housing Policy Waiver
  - Solid Bottom Cage (no bedding)
  - Wire Bottom
- Metabolism cages-IACUC Approved standard procedure is available for Q5: multiple exceptions are needed (non-standard caging, wire bottoms, withhold enrichment, single housing, if rat >250 gm guide exception to size may be required-see cage manufacturer and [Guide for Care and Use of Laboratory Animals](#) to confirm size requirements)

**Note: This is where LAMS looks to confirm exceptions to standard practice.**

9. **Describe the maximum number of procedures an animal will experience.** Provide the maximum number of procedures per procedure type (Questions 5 and 6 above) to be performed on each animal. This should appear as a list (similar to the ingredients for a recipe).

- Example: each animal may undergo up to 5 behavioral procedures, 1 major and 2 minor survival surgeries, 6 tissue collections, and 1 euthanasia.

10. **Describe expected adverse clinical signs/symptoms, frequency of monitoring, and criteria for removal from the experiment and/or euthanasia.** Include a detailed description of **ALL** humane endpoints for each experiment, including procedures within the experiment. If none, state “none expected”. For frequency, provide details e.g. instead of 2 times/day, state 2 times per day-am and pm at least 4 hours apart.

**Note: Remember to include how frequency of monitoring may change as clinical signs become apparent.**

When you are finished adding experiments, select the “OK” button to close the Add Experiment form and return to the Experiments section of the new protocol form. **IMPORTANT: Use the “Save” and “Continue” buttons often to save the data that you have entered and not lose progress!**

- **If you have multiple similar experiments, save time by creating 1 experiment, copying the experiment, and making changes to the resulting copy.**

- If your protocol includes both field and experimental research, you must select “Experimental Research” for Question 5 in the [Basic Information](#) section, and add a “Field Research” experiment that answers the following 3 questions:
  1. Where will these studies take place?
  2. Describe your plan if animals become injured during procedures. Include the anesthetic, analgesic, or euthanasia procedures in the associated question.
  3. List the required permits to conduct the field research. Include permit number/oversight agency. Approved permits must be uploaded to the protocol.

### **Experiments Questions 2 & 3: Multiple Survival Surgeries**

If an animal will undergo more than 1 survival surgery (minor or major), select **Yes** for Question 2.

**Survival surgery includes both minor and major procedures.** Surgical procedure examples include:

- Major survival surgery: myocardial infarction, ovariectomy
- Minor survival surgery: subcutaneous minipump implantation, castration

The screenshot shows the 'Experiments' section of a protocol editor. The left sidebar has a menu with 'Basic Information & Funding' (containing 'Basic Information'), 'Experimental Design' (containing 'Scientific Aims'), and 'Experiments' (highlighted). The main content area is titled 'Editing: 01-02-03-04' and 'Experiments ?'. It displays Question 2: '2. If the experiments include survival surgery, will any single animal undergo more than one survival surgery? (include any animal that underwent surgery prior to use on this protocol) ?'. Below the question are radio buttons for 'Yes' and 'No', and a 'Clear' link.

The form will update to display Question 3, where you must provide the following information:

- Describe the order of and time interval between surgical procedures on a single animal.
- Provide scientific justification for multiple survival surgical procedures on a single animal.
- Specify how many animals will undergo multiple survival surgeries.

The screenshot shows the 'Experiments' section of a protocol editor, updated to display Question 3. The left sidebar menu is more detailed, including 'Experimental Research Protocol Addition', 'Protocol Team Members', 'Funding Sources', 'Experimental Design' (with 'Scientific Aims' and 'Experiments' highlighted), 'Animal Justification' (with 'Animal Justification', 'Alternatives Searches and Duplication'), and 'Animal Housing and Use'. The main content area shows Question 3: '3. \* Describe the order of and time interval between surgical procedures on a single animal:'. Below this is a large text input field. A second question follows: '\* Provide scientific justification for multiple survival surgical procedures on a single animal:', also with a large text input field. A third question follows: '\* Specify how many animals will undergo multiple survival surgeries:', with a large text input field. The top of the editor shows 'Editing: 01-02-03-04' and navigation links like 'Go to forms menu', 'Print', and 'Help'.

## Experiments Question 4: Momentary Pain/Distress

You must tie unrelieved pain and distress to the associated procedures and experiments.

Editing: 01-02-03-04

Go to forms menu Print Help

### Experiments ?

4. If the animal will experience more than momentary unrelieved pain and/or distress, justify. Otherwise state "No":

Describe and justify more than momentary pain and distress if your protocol:

- Withholds analgesics, anesthetics, or tranquilizers.
  - Provide additional justification for the three classes of analgesics (opioids, NSAIDs, topical/local), related to each specific model; as well as when you can give one and not another e.g. can give opioids but not NSAIDs. Include literature citations.
- Contains any pain category E procedures.
  - Any procedure that results in pain/distress that is not relieved e.g. forced swim, noxious stimuli that the animal cannot avoid/escape, exposure to extreme environmental conditions, use of paralytics without anesthesia.
- Toxicological, microbiological, or infectious disease research that requires continuation after clinical signs are evident without medical care or that requires death as an endpoint.
- Refer to [USDA/APHIS Animal Care Tech Note: Categorizing Animal Pain or Distress in Research Facility](#) for additional information and examples.

## Procedure Personnel Assignment

This section should automatically prefill with all team members performing all procedures. **Do not add or edit any automatically populated information.**

Editing: 01-02-03-04

Go to forms menu Print Help

### Procedure Personnel Assignment ?

1. Select the team members who will be performing each procedure: ?

| Procedure                                                                  | Species | Is USDA Species | Team Members                                                            |
|----------------------------------------------------------------------------|---------|-----------------|-------------------------------------------------------------------------|
| Substance Administration: Analgesia<br>Moderate – Mouse, ver. 2 (Standard) | Mouse   | no              | <input checked="" type="checkbox"/> John Smith <input type="checkbox"/> |

## Strains

Only list a strain if it has a spontaneous adverse phenotype that requires special care or observation (e.g. strain that develops tumors or develops multiple sclerosis without additional intervention). Click the “+ Add” button in Question 1 to open the Add Background Strain form in a popup window.

Editing: 01-02-03-04

Go to forms menu Print Help

**Strains**

1. Identify background strains:

+ Add

| Species                       | Is USDA Species | Strain | Genetically Modified Strain | Phenotype |
|-------------------------------|-----------------|--------|-----------------------------|-----------|
| There are no items to display |                 |        |                             |           |

## Add Background Strains Form

There are 5 questions within the Add Background Strain form.

1. **Strain:** leave first field blank and skip to next 2 fields.
  - **If other, identify here:** type strain information in the text box (e.g. B6SJL.SOD1-G93A).
  - **Species:** select applicable species.
2. **Genetically modified strain:** select “Yes” or “No”.
3. **Phenotype:** provide an ID or description.
4. **Percent of animals with the phenotype:** consider using Punnett squares or Hardy-Weinberg equilibrium calculators to assist with completing this field.
5. **Describe how animals will be managed if the phenotype causes welfare issues.** Include information regarding monitoring frequency, what will be monitored, and endpoints. Details should be provided relative to the impact of the phenotype on animal welfare – small impacts require few details, and large impacts require extensive details.

## Animal Justification

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Go to forms menu Print Help

**Animal Justification**

1. Adjust the number of animals to be used or produced for this protocol as needed:

| Species | USDA Covered Species | Pain Category   | Animals Identified in Experiments | Adjusted Animal Count |
|---------|----------------------|-----------------|-----------------------------------|-----------------------|
| Mouse   | no                   | Pain Category B | 1                                 | 1                     |

1. **Adjust animal numbers:** section is prefilled by the number of animals that are in your experiments.
2. **Explain animal number adjustment:** leave this question blank.
3. **Rationale for animal use:** Animals should be used only when necessary and only when their use is scientifically and ethically justified. Explain why computers, *in vitro* systems, invertebrates, or human subjects cannot be used in place of animal experiments in this protocol. For additional information, see [Speaking of Research: The Animal Model](#).

4. **Animal number justification:** write “Refer to each associated experiment for details”
5. **Animal species justification:** justify the use of each specific species listed on the protocol. Animals should be suitable for the purpose and of an appropriate species and genetic background to ensure scientific validity and reproducibility. For additional information, see [Understanding Animal Research by Species](#).
6. **Supporting documents:** Do not use.

### Alternatives Searches and Duplication

**For each procedure listed on your protocol that causes pain or distress, you must document a recent literature search.** If your procedure does not cause pain or distress, you may still be asked to complete this section by the IACUC or Attending Veterinarian in some circumstances. The search should look for animal alternatives, ways to reduce pain/distress, and methods to reduce the number of animals needed for the study. See also: [USDA Guidance and literature search strategies](#).

### **Alternatives Question 1: Add a Search for Alternatives**

Click the “+ Add” button in Question 1 to open the Add Procedure Search Details form in a popup window.

Editing: 26-07-09-01

### Alternatives Searches and Duplication ?

1. Record all searches for alternatives for each procedure that causes pain or distress: ?

**+ Add**

| Search Date                   | Searched Databases | Keywords |
|-------------------------------|--------------------|----------|
| There are no items to display |                    |          |

There are 6 questions within the Add Alternative Search Details form:

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**Add Procedure Search Details**

1. Procedures causing pain or distress:

...

| Name                          | Version | State | Approval Date | Last Day of Approval Period |
|-------------------------------|---------|-------|---------------|-----------------------------|
| There are no items to display |         |       |               |                             |

2. \* Date of search:

...

3. Databases searched:

| Name                              | Link |
|-----------------------------------|------|
| <input type="checkbox"/> Medline  |      |
| <input type="checkbox"/> Agricola |      |
| <input type="checkbox"/> PubMed   |      |
| <input type="checkbox"/> Altweb   |      |
| <input type="checkbox"/> scopus   |      |
| <input type="checkbox"/> Other    |      |

4. Keywords used:

...

5. Summarize your search for an alternative procedure:

...

6. Time period covered by search:

Start:

...

End:

...

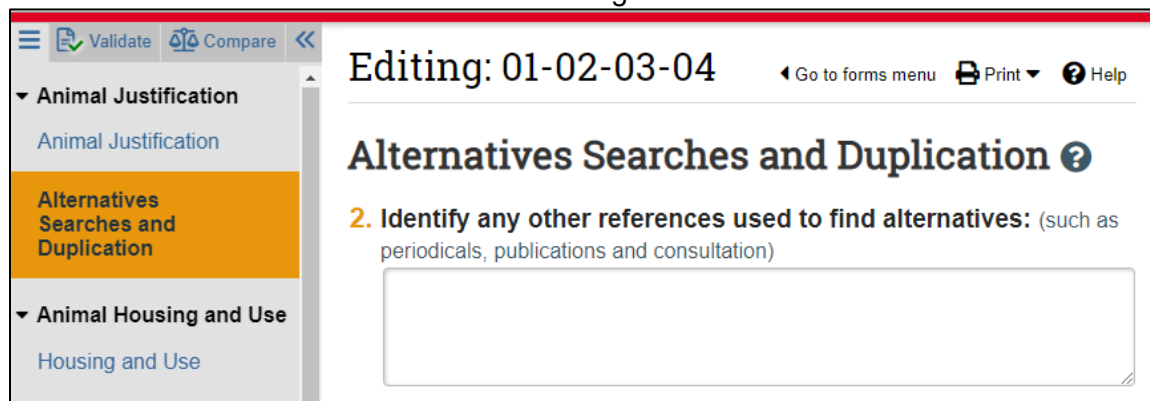
\* Required

OK OK and Add Another Cancel

- 1) **Procedures causing pain or distress:** select 1 or more procedures that you are performing the literature search for. Begin typing the procedure name to view a list of available options, or press the ellipsis "... " button to scroll through a list of procedures found in the Experiments section of your IACUC protocol that cause pain or distress.
- 2) **Date of search**
- 3) **Databases searched:** check all that apply (**minimum of two**).
- 4) **Keywords used:** words likely to be found in the title, abstract, and descriptor fields of the publication.
  - o Use words included in specific aims, species, anatomy, and systems studied.
  - o Use Boolean search strategies (e.g. cardiac AND rat OR mouse AND myocardial infarction).
- 5) **Summarize your search for an alternative procedure.**
- 6) **Time period covered by search:** each search must cover a minimum span of the last 10 years.

## Alternatives Question 2: Identify Other References

Examples of other references include scientific meetings and outside collaborators.



## Alternatives Question 3: No Unnecessary Duplication of Previous Experiments

Select the “Yes” option to confirm that the activities described in the protocol do not unnecessarily duplicate previous experiments, and that you will not unnecessarily duplicate other animal research.

## Field Research Details

This section contains 3 questions and only displays if you selected “Field Research” for Question 5 in the [Basic Information](#) section.

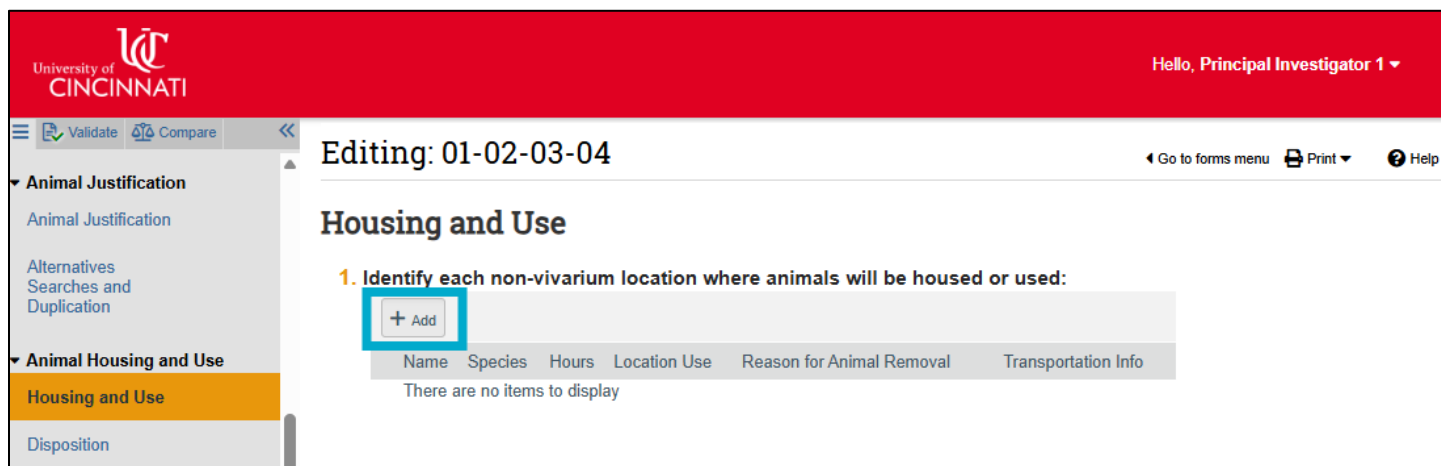
If your protocol includes both field and experimental research, you should instead select “Experimental Research” for Question 5 in the [Basic Information](#) and create an experiment in the [Experiments](#) section called “Field Research” that includes answers to the following 3 questions:

1. **Where will these studies take place?**
2. **Describe your plan if animals become injured during procedures:** Include the anesthetic, analgesic or euthanasia procedures in the associated question.
3. **List the required permits to conduct the field research.** Include permit numbers/oversight agency. Approved permits must be uploaded to protocol.

## Housing

Include all satellite locations where you are housing animals, using live animals, and/or storing diet outside of the vivarium. Refer to [ACUP Policy 109](#) and [Satellite Animal Use Areas and Diet Storage Locations Guidelines](#).

1. **Identify non-vivarium housing/procedural locations:** click the “+ Add” button in Question 1 to open the Add Animal Housing and Use Location form in a popup window.



There are 6 questions within the Add Animal Housing and Use Location form:

The screenshot shows the 'Add Animal Housing and Use Location' form. The left sidebar contains a navigation menu with the following sections: Basic Information & Funding, Experimental Design, Animal Justification, Animal Housing and Use, and Supporting Documents. The 'Animal Housing and Use' section is highlighted, and the '+ Add' button is circled in red. The main form area contains the following questions:

1. Identify the location where animals will be housed or used outside the vivarium: ?
2. \* What species will be housed or used in this location?
3. \* How many hours will animals be kept?
4. Describe how this location will be used:
5. Justify why the animals must be removed from the vivarium:
6. Describe how animals will be transported to and from this location, including container and route:

At the bottom of the form, there is a legend for the asterisk (\*) indicating required fields, and three buttons: OK, OK and Add Another, and Cancel.

1. **Identify the location where animals will be housed or used outside the vivarium:** Begin typing the room number to view a list of available options. You may also press the ellipsis “...” button to scroll through a list of existing satellite locations found in the RAP database. See [Viewing and Scrolling Lists Using Ellipses \(...\)](#) for more details. If you cannot find the location, or it is not in the system, you will need to complete the [New Satellite Location form](#) to have the location added to the system.
2. **What species will be housed or used in this location?**
3. **How many hours will animals be kept?** Areas in which non-USDA covered species (e.g. mice, rats, ectotherms, avian) are held 24 hours or longer, or USDA covered species (e.g. guinea pigs) are held 12 hours or longer are considered housing areas. Use of a satellite housing location requires the PI to include a standard operating procedure (SOP) detailing animal husbandry and care with their protocol.
4. **Describe how this location will be used.**
5. **Justify why the animals must be removed from the vivarium:** provide justification (for example, research equipment cannot be moved).
6. **Describe how animals will be transported to and from this location, including container and route:** Refer to [ACUP Policy 108](#) for specific requirements. Describe specific details regarding safe animal transportation including containers, routes. A [Personal Vehicle User Form](#) must be completed if transporting with a personal vehicle.

## Disposition

Check all options that apply. If you intend to transfer animals to LAMS for training purposes, be sure to check the box indicating that animals will be transferred to another approved protocol by another investigator. For example, investigators with a breeding colony may choose to transfer animals to LAMS instead of culling.

The screenshot shows a web-based form for editing a protocol. The top navigation bar includes a menu icon, 'Validate', 'Compare', and a back arrow. The left sidebar has three main sections: 'Animal Housing and Use' (with sub-items 'Housing and Use' and 'Disposition'), 'Supporting Documents', and 'Supporting Documents'. The 'Disposition' section is currently selected and highlighted in orange. The main content area is titled 'Editing: 01-02-03-04' and includes links for 'Go to forms menu', 'Print', and 'Help'. The section title 'Disposition' is prominently displayed. Below it, the first instruction reads: '1. Disposition plans for the animals when this research is complete: (check all that apply)'. This is followed by a list of six checkboxes with corresponding text: 'Other (describe below)', 'The animals will be euthanized according to the procedures described in this protocol.', 'The animals will be transferred to another approved protocol by another investigator.', 'The animals will be transferred to another approved protocol held by this investigator.', 'The animals will remain with their owners.', and 'Field study: Animals will be returned to their habitat.' The second instruction reads: '2. If other, provide an animal disposition description:', followed by a large, empty text input box.

Editing: 01-02-03-04    Go to forms menu    Print    Help

### Disposition

1. Disposition plans for the animals when this research is complete:  
(check all that apply)

- ☐ Other (describe below).
- ☐ The animals will be euthanized according to the procedures described in this protocol.
- ☐ The animals will be transferred to another approved protocol by another investigator.
- ☐ The animals will be transferred to another approved protocol held by this investigator.
- ☐ The animals will remain with their owners.
- ☐ Field study: Animals will be returned to their habitat.

2. If other, provide an animal disposition description:

## Supporting Documents

In this section, you may attach any relevant protocol documentation to help with IACUC review. Documents may include but are not limited to: cleaning/hazard SOPs, literature citations, grant congruency reviews, MOU documents, field permits.

**This is the last section of a new protocol form.** Press the “Finish” button in the bottom right corner of your screen to save your changes and return to the main protocol workspace.

## Submit an IACUC Protocol for Review

As you create content in your draft IACUC protocol, the status will display as “Pre-Submission”. Use the following process to submit your protocol draft for IACUC review:

1. On the protocol workspace, click the “Submit” button on the left side of the screen to open a popup window.

The screenshot shows a web interface for a protocol workspace. At the top left, there is an orange box labeled "Pre-Submission" with the date "01-02-03-04" next to it. Below this, under the heading "Next Steps", there are three buttons: "Edit Protocol", "Printer Version", and "Submit". The "Submit" button is highlighted with a blue border. Below the "Submit" button is a link "Assign Primary Contact" with a person icon. To the right of the buttons, the title "Example Protocol" is displayed in a large blue font. Below the title, there is a list of details: "Principal investigator: Jane Doe", "Submission type: New Protocol Application", "Primary contact:", "IACUC coordinator:", "Consulted vet:", "Admin office: IACUC", and "PI proxies: There are no items to display".

2. Carefully review each confirmation statement and provide comments or supporting documents if necessary. Press the “OK” button to submit the protocol for review and close the popup window. The protocol status will change from “Pre-Submission” to “Pre-Review” on the protocol workspace.

The screenshot shows a browser window titled "Execute 'Submit' on 01-02-03-04 - Google Chrome". The address bar shows the URL "rcp-qa.uc.edu/IACUC\_Candidate/sd/ResourceAdministration/Activity/form?A". The main content area has a dark blue header with the word "Submit". Below the header, it says "As the principal investigator, I certify that:" followed by three horizontal lines for a signature. Below the signature lines, there is a section labeled "1. Comments: ?" with a large text input area. Below the comments section, there is a section labeled "2. Supporting documents: ?" with a "+ Add" button. Below the "+ Add" button, there is a table with two columns: "Document Name" and "Date Modified". The table is empty, and the text "There are no items to display" is shown below it. At the bottom right of the popup, there are two buttons: "OK" and "Cancel". The "OK" button is highlighted with a blue border.

## Substances and Procedures

There are 2 types of substances and procedures found in IACUC RAP.

- **Standard:** these have been pre-approved by the appropriate safety office(s) and IACUC
- **Team:** these are subject to review and approval by the appropriate safety office(s) and IACUC

When creating an experiment for your IACUC protocol, you should always use existing RAP substances and procedures if they meet your research needs. You can perform a [Search for Existing RAP Substances and Procedures](#) to [View Substance or Procedure Details](#) and compare them to your research needs.

If a substance or procedure does not meet your research needs, you must [Create a New Team Substance](#) or [Create a New Team Procedure](#).

### Search for Existing RAP Substances and Procedures

1. Select the “IACUC” tab in the top navigation menu, then select the “Research Teams” tab.
2. Select the name of your Research Team to open the Research Team workspace.

The screenshot shows the IACUC Submissions page. The top navigation bar includes Dashboard, IRB, IACUC, and Animal Operations. The IACUC tab is selected. Below the navigation bar, there are links for Submissions, Standard Library, Concerns, Facilities, Reports, and Help Center. The main content area is titled "Submissions" and features a search bar. On the left, there are buttons for "Create Concern", "Create Research Team", and "Create Protocol". The main content area has tabs for "Research Teams", "In-Review", "Active", "Archived", and "All Submissions". The "Research Teams" tab is selected. Below the tabs, there is a "Filter by" section with a dropdown menu set to "Name". A search bar is present with the text "Enter text to search for". Below the search bar, there is a table with two columns: "Name" and "Investigator". The first row in the table is "Jane Doe Research Team" under the "Name" column and "Jane Doe" under the "Investigator" column. The "Jane Doe Research Team" text is highlighted with a blue box. Below the table, it says "1 item" and "page 1 of 1". There is also a "25 / page" option.

3. By default, the Research Team workspace opens with the “Submissions” tab displaying.
  - a. select the “Procedures” tab to view a list of all RAP procedures
  - b. select the “Substances” tab to view a list of all RAP substances

The screenshot shows the IACUC Research Team workspace. The top navigation bar includes Dashboard, IRB, IACUC, and Animal Operations. The IACUC tab is selected. Below the navigation bar, there are links for Submissions, Standard Library, Concerns, Facilities, Reports, and Help Center. The main content area is titled "Jane Doe Research Team" and features a "Next Steps" section with buttons for "Edit Research Team", "Create Protocol", "Create Procedure", and "Create Substance". The "Active" tab is selected. Below the tabs, there is a "Filter by" section with a dropdown menu set to "Name". A search bar is present with the text "Enter text to search for". Below the search bar, there is a table with two columns: "Name" and "Investigator". The "Procedures" tab is selected and highlighted with a blue box. Below the table, it says "1 item" and "page 1 of 1". There is also a "25 / page" option.

### Use the Filter to Search for Specific Criteria

Almost every tab on the Research Team workspace has a filter to search for specific criteria or view specific results. To perform a partial search, use % as a wildcard (takes the place of 1 or more letters in a search).

- **Example:** searching for %glu will result in a list of results with “glu” anywhere in the name  
e.g. glucose, L-glutamine, monosodium glutamate, fluoro-2-deoxyglucose

RT-01-02-03-04

## Jane Doe Research Team

Principal investigator: Jane Doe  
Phone:  
E-mail: jane.doe@uc.edu

Submissions Procedures Substances History Research Team Contacts ...

Filter by <sup>?</sup> Name

| ID          | Name             | Date Modified     | State    | Submission Type          |
|-------------|------------------|-------------------|----------|--------------------------|
| 01-02-03-04 | Example Protocol | 7/13/2021 5:05 PM | Approved | New Protocol Application |

### View Substance or Procedure Details

1. In your search results, select the name of the substance or procedure you want to view details for.

RT-01-02-03-04

## Jane Doe Research Team

Principal investigator: Jane Doe  
Phone:  
E-mail: jane.doe@uc.edu

Submissions Procedures Substances History Research Team Contacts ...

Filter <sup>?</sup> Name

| Name                         | Execute Activity | Date Modified     | State  | Version | Species | Procedure Type           | Scope    |
|------------------------------|------------------|-------------------|--------|---------|---------|--------------------------|----------|
| Adrenalectomy - Mouse        | Actions ▾        | 7/8/2019 10:18 AM | Active | 1       | Mice    | Survival Surgery         | Standard |
| Agents Administration - Mice | Actions ▾        | 3/22/2021 4:10 PM | Active | 1       | Mice    | Substance Administration | Team     |

2. Select the “View Procedure” or “View Substance” button on the left side of your screen for details. Scroll through and review the entire procedure and check if it meets your needs.

**Active**

PROC00001328

### Adrenalectomy - Mouse

**Next Steps**

Procedure type: Survival Surgery  
Surgery type: Major  
Procedure scope: Standard  
Species: Mouse  
Version: 1  
Approval date: 7/8/2019

**Active**

SUBST00001966

### PLX-5622

**Next Steps**

Substance types: Standard Housing Area  
Substance Housing and Containment: Standard Housing Area  
Substance scope: Team

If the standard procedure or substance meets your needs, then no further action needed. The standard will be available when you need to add it to the experiment. If the procedure or substance does not meet your needs, you must [Create a New Team Substance](#) or [Create a New Team Procedure](#).

3. When you are done viewing procedure or substance details, click the “Exit” button on the bottom right of your screen to close the form.

## Create a New Team Substance

From the Research Team workspace, select the “Create Substance” button on the left side of your screen to open a “Create New Substance” form. There are 5 questions within this form:

1. **Name:** follow the guidance below for substance name requirements
  - use generic name instead of trademarked name
    - e.g. “acetaminophen” instead of “Tylenol®”
  - add substance abbreviations in parenthesis
    - e.g. “dimethyl sulfoxide (DMSO)”
  - if radiological agent, identify the radionuclide
    - e.g. “uridine triphosphate S-35 (UTP S-35)”
  - use the compound class to group similar substances together (must provide 1 or 2 examples)
    - e.g. “topical antibiotics (e.g. neomycin, bacitracin)”
    - Only chemicals with the same hazard profile can be grouped. Biologicals and radioisotopes must be separated.
2. **Substance Types:** select all that apply, including at least 1 of the following types
  - Biological Agent
  - Chemical Agent
  - Radioactive Agent
3. **Is this a hazardous agent?** Select “Yes” or “No”. You can confirm the hazard status of a substance with the appropriate safety office:
  - a. Biological agents: UC Biosafety Office
  - b. Chemical agents: UC Environmental Health & Safety (EH&S)
  - c. Radioactive agents: UC Radiation Safety Office
4. **Supporting Documents.** Attach a Safety Data Sheet (SDS) or white paper for any created substance.
5. **Substance Housing and Containment:** select all that apply to the housing and containment of animals after administration of this substance.
  - Non-hazardous substances are typically used in a “Standard Housing Area”.
  - Hazardous substances must typically be used in at least 1 of the following areas:
    - Biocontainment Room (biohazards)
    - Chemical Containment Room (chemicals)
    - Radiation Commissioned Room (radioactive agents)

Select the “Finish” button to finish creating the new team substance and close the form.

## Create a New Team Procedure

From the Research Team workspace, select the “Create Procedure” button on the left side of your screen to open a “Creating New Procedure” form. If multiple species on your protocol undergo similar procedures, use the [Copy a Procedure](#) technique to quickly duplicate a procedure and change the species.

There are 5 questions on the first page of this form:

1. **Name:** create a name for the procedure with enough detail so that you can easily search for and add this procedure to a protocol experiment later on (e.g. administering inflammatory agents, TAC surgery).

2. **Procedure Type:** choose 1 of the categories below. Your answer to this question will determine the questions populated on the next page of the form. Each category is defined in [Appendix 2: Preferred Language and Definitions](#).

- Survival Surgery (major/minor)
- Substance Administration
- Food and Fluid Restriction
- Non-survival Surgery
- Behavioral
- Non-Surgical
- Physical Restraint
- Tissue/Blood Collection
- Euthanasia

3. **Species:** select 1 species per procedure.

4. **Admin office:** defaults to IACUC.

5. **Will administering this procedure cause any more than momentary pain and distress?**

Consider both the immediate procedure and intended, downstream effects of this procedure in your answer. For example, you should answer “Yes” for a procedure administering Lipopolysaccharide (LPS), bacteria, or tumor cells with the intention of making the animal sick, grow tumors, cause inflammation, etc.

Another example: you should answer “No” for a substance administration procedure where a substance that does not cause pain/distress (e.g. insulin, saline) is administered by a route that does have associated pain/distress (e.g. surgical minipump implant). In this example, the pain/distress description is provided in the surgical implant procedure instead of the substance administration procedure, because the surgery is the source of the pain/distress.

If yes, provide the following response to the following questions:

- Identify expected symptoms from administering this procedure**
- Identify criteria under which animals will be removed from research**

Press the “Continue” button to move forward to the next page(s) of the form. Use the following guidelines to complete the remaining procedure form pages.

- Textbox questions: if there is no appropriate response, type “N/A” (do not leave field textbox blank).
- Use the word “animal” instead of the species name when providing descriptions (facilitates the [Copy a Procedure](#) technique).
- See [Appendix 2: Preferred Language and Definitions](#) for writing examples and specific details.
- Forms for all procedure types EXCEPT Substance Administration will ask you to identify substances administered during the procedure. This includes anesthesia and/or analgesics administered.
  - **Add related substance administration procedures for all non-variable substances.** For example, for a Survival Surgery you would include analgesics and anesthetics, but would not include experimental substances (e.g. LPS, biological and chemical agents).
  - **Leave the “Describe each substance” textbox blank.**

**4. Select the substance administration used (include anesthesia and analgesia):**

| Name                          | Type | Version | Scope |
|-------------------------------|------|---------|-------|
| There are no items to display |      |         |       |

Alternatively, if you cannot find the procedures in the list above, enter the information here:

Describe each substance and the step-by-step procedure to be used: (include route, dose, volume, concentration, and whether substance is pharmaceutical grade) ?



## Substance Administration Team Procedure

If you selected “Substance Administration” as the procedure type, this is the second page of the form. Group substances based on use.

For example, if you have an induction of tumor substance administration that would include all of your tumor cells, and a separate treatment of tumor substance administration that includes all of the agents that you would use to stop tumor growth.

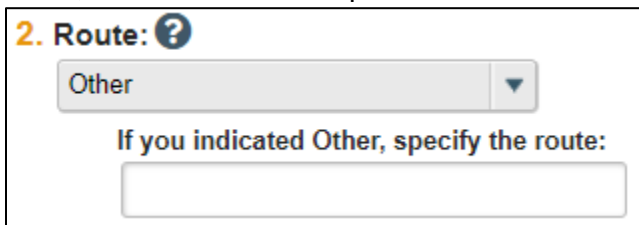
1. **Substances.** Click the “+ Add” button to add substances using a “Add Substance to Procedure” form.

2. Complete all 8 questions on the Add Substance for Procedure form:

- a) **Substance.** Use the filter feature to search for a substance. You can use % as a wildcard (takes the place of 1 or more letters in a search) to perform a partial search.

If you do not find a substance that you are looking for, click “cancel!” and on the previous screen you will see the prompt to [Create a New Team Substance](#).

- b) **Route.** Select the route of administration from the dropdown menu. If using multiple routes of administration OR the route of administration is not listed, select “Other” from the dropdown menu, and describe in the provided textbox:



2. Route: ?

Other

If you indicated Other, specify the route:

- c) **Dose.** Provide a dose and units of measurement.
- Units of measurement can be specific (e.g. mg/kg) or general (e.g. number of cells).
  - Provide a dose range or use flexible language (e.g. up to 5 mg/kg).
  - Distinguish between multiple administration routes (e.g. 5 mg/kg PO, 2-6 mg/kg IP).
- d) **Frequency of dosage.** Distinguish between multiple routes of administration if applicable (e.g. PO administered 1x/week, IP administered 2x/month).
- If 1 substance has several administration routes and frequencies, consider adding the substance with a different administration route and frequency multiple times, instead of adding too many details to 1 substance. **Information must be clear to the reviewer.**
- e) **Concentration.** Typically provided in mg/mL. This field is not required if your provided adequate details in the “Dose” question.
- f) **Volume.** Provide the maximum volume/route.
- g) **Purpose.** Provide a reason for substance administration (e.g. induce inflammation, treatment, antibiotic).
- h) **Is substance pharmaceutical grade?** Answer using 1 of the following options.
- Note: most biological agents are not pharmaceutical grade.*
- Yes
  - No (not available)
  - No (incorrect formulation)
  - No (other) – *provide a description/justification in Q4a*

Select either the “OK” (closes form) or “OK and Add Another” (keeps form open) button to finish adding your substance.

3. **Describe step by step the procedure for administering the substances.** See [Appendix 2: Preferred Language and Definitions](#) to see examples of responses to this question.
4. **Describe any anticipated adverse reactions to administering the substances.** Do not leave this question blank. If no adverse reactions are expected, you must state this.
5. **Are all substances being administered in this procedure pharmaceutical grade?**  
If you listed multiple substances, be very clear about which specific substances are non-pharmaceutical grade and provide detailed responses to subsequent questions. For details and definitions, see [ACUP Policy 105](#).

If you answer “No”, the following questions will display:

- a) **If you answered "No-other" above, please provide justification for not using pharmaceutical grade.** Otherwise state "N/A".
  - b) **For each non-pharmaceutical grade substance, describe the procedures to be used to ensure the sterility, purity, stability, and physiologic pH of the compound.**  
Provide detailed formulation information including vehicles, including sterile filtration through 0.22 micron filter if applicable.
  - c) **For each non-pharmaceutical grade substance, describe storage method, if any.**  
e.g. substance frozen at -80°C, then thawed at room temperature for before administration.
6. **Select the anesthesia and analgesia procedures to be used.** Add ONLY if required for the act of substance administration (e.g. retroorbital injections). Anesthesia and analgesia administered during surgery must be listed in the surgical procedure (e.g. craniostomy, minipump) and should not be included here.
  7. **Describe the monitoring of the animal during the procedure.**
  8. **Describe post-procedural care and monitoring.**

Press the “Finish” button in the lower right corner of your screen to finish creating your new team procedure.

### Copy a Procedure

Copying a procedure is a quick and easy technique to use similar language, descriptions, and substances. Standard or team procedures can be copied from a research team or from the procedure workspace.

Examples of why you might want to copy a procedure include:

- Modifying a standard procedure to meet your research needs
- Applying similar procedures to multiple species

When you copy a procedure, it may take a few minutes before the copied procedure associated with your research team displays in RAP. You may need to refresh your page a few times.

### Copy Procedure from a Research Team

1. Select the “IACUC” tab, then click on the name of your Research Team.
2. Select the “Procedures” tab and locate the procedure you want to copy.
3. In the Execute Activity column, select the small arrow to the right of “Actions” to display a dropdown menu. Select “Copy Procedure” from the dropdown menu to open a new popup window.

The screenshot shows the RAP interface for the 'Jane Doe Research Team' (RT-01-02-03-04). The 'Procedures' tab is active. A table lists procedures, and a dropdown menu is open for the 'Neonatal Euthanasia - Mouse' procedure, showing options: 'Create New Version', 'Add Comment', 'Copy Procedure' (highlighted), and 'Archive Procedure'.

| Name                         | Execute Activity     | Date Modified     | State  | Version |
|------------------------------|----------------------|-------------------|--------|---------|
| Neonatal Euthanasia - Mouse  | Actions ▾            | 7/8/2019 10:18 AM | Active | 1       |
| Agents Administration - Mice | ▢ Create New Version |                   | Active | 1       |
| Barnes Maze Test-Mouse       | 💬 Add Comment        |                   | Active | 1       |
|                              | ▢ Copy Procedure     |                   |        |         |
|                              | 🔒 Archive Procedure  |                   |        |         |

- Alternatively, you can click the procedure name to navigate to the procedure workspace. Select the “Copy Procedure” button from the left navigation menu to open a new popup window.

Active

Next Steps

View Procedure

Printer Version

Add Comment

Copy Procedure

PROC00003551

Neonatal Euthanasia - Mouse

Procedure type:

Euthanasia

Procedure scope:

Standard

Species:

Mouse

Version:

1

Coordinator:

Rebecca Jones

Approval date:

6/8/2020

- The “Copy Procedure” form will display in a popup window. Provide a name for the copied procedure (Question 1) and assign it to the applicable research team (Question 2). Press the “OK” button to create a procedure copy. **When copying a standard procedure: to avoid confusion, please do not use similar naming strategies as the standard.**

Copy Procedure

Euthanasia Procedure: Neonatal Euthanasia - Mouse

This procedure will be copied to the selected research team when you click OK. Any associated team substances will not be copied if you assign the copy to a different research team.

1. \* New procedure name:

2. \* New research team:

| Name                                                     | PI         |
|----------------------------------------------------------|------------|
| <input type="radio"/> Jane Doe Research Team             | Jane Doe   |
| <input type="radio"/> Smith Cardiovascular Research Team | John Smith |

Clear

Depending on the size of the procedure, copying may take some time.

OK Cancel

## Edit a Copied Procedure

- Select the “IACUC” tab, then click on the name of your Research Team.
- Select the “Procedures” tab and use the filter feature to search for a procedure using specific criteria. Once you locate the copied procedure you want to edit, click on the procedure name.
- Select the “Edit Procedure” button on the procedure workspace to review and make edits/changes.

Active

Next Steps

Edit Procedure

Printer Version

Create New Version

Add Comment

Copy Procedure

Archive Procedure

PROC00005732

Neonatal Euthanasia - Mouse (Doe lab)

Procedure type:

Euthanasia

Procedure scope:

Team

Species:

Mouse

Version:

1

Euthanasia method:

Physical

History Documents Related Protocols ...

Filter by ?

Activity

Enter text to search for

Q

+ Add Filter

| Activity          | Author    | Activity Date      |
|-------------------|-----------|--------------------|
| Procedure Created | Doe, Jane | 7/20/2021 12:53 PM |

Copied from Standard Procedure: PROC00003551 Neonatal Euthanasia - Mouse

You can edit the procedure to meet your needs – for example, you may need to change the species the procedure applies to or change the type of substance administered as part of this procedure. Like other forms, press the “Continue” button to save your changes and proceed to the next section of a form. Press the “Finish” button to save your changes and close the form.

### Create a New Version of a Team Procedure

If you have a team procedure that is approved on your protocol or approved on another protocol you may want to create a new version of the procedure. Benefits of creating a new procedure version include:

- Historical tracking of procedural changes over time (allows you to keep the historical procedure in use but allows you to make changes to a new procedure version).
  - Automatic archiving of previous procedure versions (will cause the system to flag archived procedures for update/replacement during triennial review). **Old versions must be replaced by the newest versions during triennial. Each procedure has an associated version number visible on the procedure workspace.**
  - Designated reviewers can focus on changes between previous and new procedure versions, instead of reviewing an entirely new procedure from start to finish (decreases reviewing turnaround time).
1. On your Research Team workspace, select the Procedures tab and click on the name of the procedure you want to create a new version of.

The screenshot shows the 'Principal Investigator 1 Team' workspace. The 'Procedures' tab is selected. A table lists procedures, with 'Substance Administration' highlighted. The table has columns: Name, Execute Activity, Date Modified, State, Version, Species, and Procedure Type.

| Name                     | Execute Activity | Date Modified      | State  | Version | Species | Procedure Type           |
|--------------------------|------------------|--------------------|--------|---------|---------|--------------------------|
| Agent administration     | Actions ▼        | 5/5/2025 10:07 AM  | Active | 2       | Mouse   | Substance Administration |
| Substance Administration | Actions ▼        | 6/29/2026 11:52 AM | Active | 1       | Mouse   | Substance Administration |

2. Select the “Create New Version” button from the left navigation menu to open a new popup window.

The screenshot shows the 'Substance Administration' procedure workspace. The 'Create New Version' button is highlighted in the left navigation menu. The workspace displays details for the procedure, including its type, scope, species, and version.

Procedure type: Substance Administration  
 Procedure scope: Team  
 Species: Mouse  
 Version: 1

Substances:

The bottom section shows tabs for History, Documents, Related Protocols, Related Procedures, and Versions. A search bar is also present.

- The “Create New Version” form will display in a popup window. Select “Yes” for Question 1, then press the “OK” button to create a new version of the team procedure. **This action will archive the prior version of the procedure and activate the new version of the procedure.**

Create New Version

This activity creates a new version of this procedure. The older version will be archived, meaning it can no longer be selected in protocol experiments. The older procedure must be replaced in any active protocol referencing it before the next triennial review can be submitted.

1. \* Are you sure you want a new version of this procedure? (The current version will be archived. It can no longer be selected in experiments and must be updated in existing protocols.) ☒ Yes ☐ No [Clear](#)

2. Comments:

3. Supporting documents:

+ Add

| Document Name                 | Date Modified |
|-------------------------------|---------------|
| There are no items to display |               |

OK

Cancel

### Edit a New Version of a Team Procedure

- Select the “IACUC” tab, then click on the name of your Research Team.
- Select the “Procedures” tab and use the filter feature to search for a procedure using specific criteria. Once you locate the copied procedure you want to edit, click on the procedure name.
- Select the “Edit Procedure” button on the procedure workspace to review and make edits/changes.

» Dashboard

AOPS

IRB

IACUC

Submissions

Standard Library

Concerns

Facilities

Reports

Help Center

Active

PROC00011985

Substance Administration

Procedure type:

Substance Administration

Procedure scope:

Team

Species:

Mouse

Version:

1

Substances:

Next Steps

Edit Procedure

Printer Version

Create New Version

Add Comment

Copy Procedure

Archive Procedure

History

Documents

Related Protocols

Related Procedures

Versions

Filter by

Activity

Enter text to search for

+ Add Filter

✕ Clear All

Activity

Author

Activity Date

Procedure Created

Investigator 1, Principal

6/24/2026 11:20 AM

- Press the “Continue” button to save your changes and proceed to the next section of a form. Press the “Finish” button to save your changes and close the form.

## Responding to a Request for Clarification

Submitted IACUC protocols and amendments are subject to review by the IACUC prior to approval. During the review process, IACUC reviewers may leave comments on the amendment summary and/or specific sections of the protocol form for many reasons, including requesting clarification or edits to your protocol or amendment. **Remember that you may use your Dashboard button on the primary navigation bar to quickly see all pending items assigned to you that are awaiting review/action.**

1. Select the “IACUC” tab, then select the “In Review” tab on your main workspace. Click on the ID or Name of the IACUC protocol to open the protocol workspace.

The screenshot shows the IACUC Submissions dashboard. The top navigation bar includes 'Dashboard', 'IRB', 'Animal Operations', 'IACUC', and 'Animal Operations'. Below this is a secondary navigation bar with 'Submissions', 'Standard Library', 'Concerns', 'Facilities', 'Reports', and 'Help Center'. The main content area is titled 'Submissions' and features a search bar and a table of submissions. The table has columns for ID, Name, Date Modified, State, Submission Type, PI First Name, and PI Last Name. The first row is highlighted with a blue border, showing ID '01-02-03-04', Name 'Example Protocol', Date Modified '8/5/2021 5:06', State 'Clarification Requested (Vet Consult)', Submission Type 'New Protocol Application', PI First Name 'Jane', and PI Last Name 'Doe'.

| ID          | Name             | Date Modified | State                                 | Submission Type          | PI First Name | PI Last Name |
|-------------|------------------|---------------|---------------------------------------|--------------------------|---------------|--------------|
| 01-02-03-04 | Example Protocol | 8/5/2021 5:06 | Clarification Requested (Vet Consult) | New Protocol Application | Jane          | Doe          |

2. For protocol reviewer comments, press the “Edit Protocol” button on the left side of your screen. If you want to see amendment reviewer comments, see step 3 (next). If not, advance to step 4.

The screenshot shows the 'Example Protocol' workspace. On the left, there is a sidebar with a yellow box labeled 'Clarification Requested (Vet Consult)' and a blue button labeled 'Edit Protocol'. The main content area displays the protocol ID '01-02-03-04', the title 'Example Protocol', and details: 'Principal investigator: Jane Doe', 'Submission type: New Protocol Application', and 'Primary contact:'.

3. For amendment reviewer comments, locate and click on the amendment ID in the “History” tab to open the amendment workspace. Press the “Edit Amendment” button on the left side of your screen.

The screenshot shows the 'Add a new experiment' workspace. On the left, there is a sidebar with a yellow box labeled 'Clarification Requested (Vet Consult)' and a blue button labeled 'Edit Amendment'. The main content area displays the amendment ID 'AM01-01-02-03-04', the title 'Add a new experiment', and details: 'Principal investigator: Jane Doe', 'Submission type: Amendment', 'Primary contact:', and 'IACUC coordinator:'.

- To locate reviewer comments, look for a numbered textbox icon on the left navigation panel. When you click and open the specific section, you will see the textbox icons next to specific questions on the form, indicating there are comments available for review.

Example: in the image below, there are 2 reviewer comments in the Amendment Summary section. When the section is opened, there are 2 reviewer comments made to Question 2 of this form.

To ensure all reviewer comments are addressed, it is recommended to start at the top of the form and work your way down each section of the form, saving changes made to each section of the protocol form and responding to reviewer comments before switching between sections. To edit substances and procedures in response to a reviewer comment, refer to the [Substances and Procedures](#) section of this manual.

### Protocol Review Process and Timelines

Reviewers may ask questions or request clarification at any step of the process. This back-and-forth process is performed within RAP, and the IACUC Office is available to help incorporate requested changes at any time.

- Pre-review (IACUC Office):** administrative review of all protocol sections, ensuring content is clear, concise, and complete.
- Vet review (ACUP Veterinarian):** focuses on animal health and welfare, animal housing (satellite or within LAMS) arrangements, and husbandry considerations.
- IACUC review:** scientific review by either full committee (all members) or designated members (2-3 people). Review focuses on harm/benefit analysis and the 3Rs (Reduction, Refinement and Replacement).
- Post-review (IACUC Office):** if there are any outstanding items still needed (e.g. IBC approval, training updates), they must be addressed during post-review before the IACUC protocol can be approved.
- Approval:** If this is a triennial, animals active on your previous protocol will be transferred to your new protocol. Begin using the new protocol number, and discontinue using the old protocol number for all correspondence, service requests, animal orders, etc.



## Responding to Reviewer Clarifications

1. Click on the numbered textbox icon next to a specific question on the protocol form to open the comment in a textbox-shaped popup window. The comment popup window has 2 sections:
  - a. **Change History (left side):** a history of changes made to the protocol form as a result of this comment.
  - b. **Reviewer Notes (right side):** includes a history of requested changes or clarifications.
2. Make the requested changes to the protocol form. Press “Save” to save your changes.
3. On the “Reviewer Notes” side of the popup, press the “Reply” button to open a textbox where you can type a response to the reviewer. Press the “OK” button to save your comment response.

The screenshot shows a popup window with two main sections. The left section, titled 'Change History', lists a change by Jane Doe (JD) made 8 days ago to version 5.4 of the 'Vet Consult' protocol. The right section, titled 'Reviewer Notes', shows a note from an Attending Veterinarian (AV) requesting a review of the PI, posted 5 minutes ago. A 'Reply' button is highlighted, leading to a text input field with the placeholder 'Enter text here'. At the bottom right of the input field are buttons for 'Attach Files', 'OK', and 'Cancel'. A 'Close' button is in the top right corner of the popup.

4. Once all changes have been made and saved, press the “Exit” button to leave the protocol form and return to the protocol or amendment workspace. Press the “Submit Response” button on the left side of the screen to open a popup window.

The screenshot shows a 'Clarification Requested (Designated Review)' popup window. On the left, under 'Next Steps', are buttons for 'Edit Protocol', 'Printer Version', and 'Submit Response' (which is highlighted with a red border). There is also a link for 'Assign Primary Contact'. The main area displays protocol details for 'Example Protocol' dated 01-02-03-04, including the Principal Investigator (Jane Doe), Submission type (New Protocol Application), Primary contact, IACUC coordinator, Consulted vet, Admin office (IACUC), and PI proxies (none displayed). A flow diagram at the bottom shows 'Pre-Submission' leading to 'Pre-Review'.

5. Provide comments or supporting documents if necessary. Press the “OK” button to submit the protocol for review and close the popup window. The protocol status will no longer contain “Clarification Requested” on the protocol workspace.

Execute "Submit" on 01-02-03-04 - Google Chrome

rcp-qa.uc.edu/IACUC\_Candidate/sd/ResourceAdministration/Activity/form?A

### Submit

As the principal investigator, I certify that:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**1. Comments:** ?

**2. Supporting documents:** ?

+ Add

| Document Name                 | Date Modified |
|-------------------------------|---------------|
| There are no items to display |               |

OK Cancel

## Protocol Maintenance

### Finding Your Protocol

1. Click the Submission link in the top navigation, then click the "Research Teams" tab to see a list of your research teams and the associated Principal Investigator (PI). Click the research team name to open the associated page.

University of CINCINNATI

Hello, Principal Investigator 1 ▾

» Dashboard AOPS IRB IACUC

Submissions Standard Library Concerns Facilities Reports Help Center

### Submissions

Search  Q

Create Concern

Create Research Team

Create Protocol

Research Teams In-Review Active Archived All Submissions

Filter by ? Name ▾ Enter text to search for Q + Add Filter X Clear All

| Name                          | PI First Name | PI Last Name   |
|-------------------------------|---------------|----------------|
| Principal Investigator 1 Team | Principal     | Investigator 1 |

1 items

◀ page 1 of 1 ▶ 25 / page

- In the Submissions tab, click the name of the protocol you want to view.

The screenshot shows the IACUC Submissions page for the Principal Investigator 1 Team. The page has a red header with the University of Cincinnati logo and the user's name, "Hello, Principal Investigator 1". Below the header is a navigation bar with tabs: Dashboard, AOPS, IRB, and IACUC. Under the IACUC tab, there are links for Submissions, Standard Library, Concerns, Facilities, Reports, and Help Center. The main content area shows the team's active status and a list of submissions. The "Submissions" tab is selected, displaying a table with columns: ID, Name, Date Modified, State, and Submission Type. The table lists three items, with the first two being "Animal Use Protocol" and the third being "Short title". The "Animal Use Protocol" entry is highlighted with a red box.

## Reviewing Your Protocol

The protocol workspace includes:

- protocol ID
- protocol name
- expiration date
- approval letter
- tabs where you can quickly view important protocol information

The screenshot shows the IACUC Animal Use Protocol workspace. The page has a red header with the University of Cincinnati logo and the user's name, "Hello, Principal Investigator 1". Below the header is a navigation bar with tabs: Dashboard, AOPS, IRB, and IACUC. Under the IACUC tab, there are links for Submissions, Standard Library, Concerns, Facilities, Reports, and Help Center. The main content area shows the protocol details for "Animal Use Protocol". The "Approved" status is highlighted. The "Next Steps" section includes links for View Protocol, Printer Version, and Create Amendment. The "Related animal protocol" section shows a flowchart of the review process: Pre-Submission, Pre-Review, IACUC Review, Post-Review, and Review Complete. The "History" tab is selected, showing a list of events. The "Animal Use Protocol" entry is highlighted with a red box.

1. Click the Experiments tab to quickly display experiments and procedures. You can click the name of any experiment or procedure to view more information and details.

Dashboard AOPS IRB IACUC

Submissions Standard Library Concerns Facilities Reports Help Center

Approved 25-03-24-02

### Animal Use Protocol

Principal investigator: Principal Investigator 1  
Submission type: New Protocol Application  
Primary contact:  
IACUC coordinator:  
Consulted vet:  
Admin office: IACUC  
PI proxies:  
There are no items to display  
Related animal protocol: 25-03-24-02: Animal Use Protocol

Letter: Correspondence\_for\_25-03-24-02.pdf(0.02) ...

Protocol type: Experimental Research  
Approval date: 3/24/2025 (25-03-24-02 - Animal Use Protocol )  
Latest approval date: 7/22/2025 (AM02-25-03-24-02 - Amendment for 25-03-24-02) ...  
Effective date: 7/22/2025  
Last day of annual review period:  
Last day of triennial approval period: 3/24/2028

Next Steps

View Protocol

Printer Version

Create Amendment

Publish To Animal Operations

Request Closure

Assign Primary Contact

Assign PI Proxy

Manage Guest List

Manage Related Safety Protocols

Add Comment

(IACUC - PROTOCOL - Review Complete)

Pre-Submission Pre-Review IACUC Review Post-Review Review Complete

Clarification Requested Clarification Requested Modifications Required

History Experiments Animal Counts Documents Reviews Contacts Snapshots ...

| Name         | Species | USDA | Total | Pain Category            | Common Procedures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------|---------|------|-------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| experiment 1 | Mouse   | no   | 100   | B: 0, C: 100, D: 0, E: 0 | <ul style="list-style-type: none"><li>Blood Collection - Single or Multiple - Mouse (Standard - Tissue/Blood Collection)</li><li>Substance Administration - Euthanasia - Mouse (Standard - Substance Administration)</li><li>Substance Administration - Anesthesia - Mouse (Standard - Substance Administration)</li><li>Agent administration (Team - Substance Administration)</li><li>Euthanasia - Chemical - Mouse (Standard - Euthanasia)</li><li>Genotyping and Identification - Mouse (Standard - Tissue/Blood Collection)</li></ul> |

2. Click the Documents tab to quickly access any documents attached to the protocol, procedures, or substances. Click any document to open it and view its contents.

Dashboard AOPS IRB IACUC

Submissions Standard Library Concerns Facilities Reports Help Center

Approved 25-03-24-02

### Animal Use Protocol

Principal investigator: Principal Investigator 1  
Submission type: New Protocol Application  
Primary contact:  
IACUC coordinator:  
Consulted vet:  
Admin office: IACUC  
PI proxies:  
There are no items to display  
Related animal protocol: 25-03-24-02: Animal Use Protocol

Letter: Correspondence\_for\_25-03-24-02.pdf(0.02) ...

Protocol type: Experimental Research  
Approval date: 3/24/2025 (25-03-24-02 - Animal Use Protocol )  
Latest approval date: 7/22/2025 (AM02-25-03-24-02 - Amendment for 25-03-24-02) ...  
Effective date: 7/22/2025  
Last day of annual review period:  
Last day of triennial approval period: 3/24/2028

Next Steps

View Protocol

Printer Version

Create Amendment

Publish To Animal Operations

Request Closure

Assign Primary Contact

Assign PI Proxy

Manage Guest List

Manage Related Safety Protocols

Add Comment

(IACUC - PROTOCOL - Review Complete)

Pre-Submission Pre-Review IACUC Review Post-Review Review Complete

Clarification Requested Clarification Requested Modifications Required

History Experiments Animal Counts Documents Reviews Contacts Snapshots ...

Protocol documents:

| Document Name                 | Date Modified |
|-------------------------------|---------------|
| There are no items to display |               |

Procedure documents:

| Document Name                        | Date Modified         |
|--------------------------------------|-----------------------|
| Blood and Fluid Guidelines.pdf(0.03) | ... 7/7/2023 10:46 AM |

Substance documents:

| Document Name                          | Date Modified           |
|----------------------------------------|-------------------------|
| Isoflurane Chemical Advisory.pdf(0.02) | ... 10/15/2024 11:49 AM |

- Use the View Protocol button or the Printer Version button on the left side of your screen to view the entire contents of your protocol.

The screenshot shows the IACUC dashboard with a navigation bar at the top containing 'Dashboard', 'AOPS', 'IRB', and 'IACUC'. Below this is a secondary bar with 'Submissions', 'Standard Library', 'Concerns', 'Facilities', 'Reports', and 'Help Center'. The main content area features an 'Approved' status box, a date '25-03-24-02', and the title 'Animal Use Protocol'. To the left, under 'Next Steps', are three buttons: 'View Protocol', 'Printer Version', and 'Create Amendment'. To the right, protocol details are listed: 'Principal investigator: Principal Investigator 1', 'Submission type: New Protocol Application', 'Primary contact:', 'IACUC coordinator:', 'Consulted vet:', 'Admin office: IACUC', and 'PI proxies:'.

### Reviewing Your Protocol Using the View Protocol Button

- The right side reading pane allows you to scroll through the entire protocol.
  - Use Ctrl + F to find specific keywords.
- In the left side navigation, click any section of the protocol to quickly jump to its contents.

The screenshot shows the 'View Protocol' page. The top header includes the University of Cincinnati logo and 'Hello, Principal Investigator 1'. The left sidebar contains a navigation menu with sections: 'Basic Information & Funding' (with sub-items like 'Basic Information', 'Experimental Research Protocol Addition', 'Protocol Team Members', 'Funding Sources'), 'Experimental Design' (with 'Scientific Aims', 'Experiments'), and 'Blood Collection - Single or Multiple - Mouse (Standard - Tissue/Blood Collection)' (with 'Procedure Identification', 'Tissue/Blood Collection', 'Procedure Documents'). The main content area is titled 'Reading: 25-03-24-02' and 'Basic Information'. It contains a list of seven items, each with a red asterisk and a question mark icon: 1. 'Select research team:' (Principal Investigator 1 Team), 2. 'Select admin office:' (IACUC), 3. 'Title of protocol:' (Choose title of protocol), 4. 'Short title:' (Animal Use Protocol), 5. 'Summary of research:' (Provide a short, non-technical/lay terms description...), 6. 'Principal investigator:' (Principal Investigator 1), and 7. 'What is the intention of the animal protocol?' (Experimental Research). An 'Exit' button is in the bottom right corner.

3. Use the Compare button in the top left to compare a previous version of the protocol to the current version (helpful when making requested clarifications and amendments).
  - a. Click the down arrow ▼ to select the version of the protocol version that you want to compare to the current version.

Reading: 25-03-24-02

### Basic Information

1. \* Select research team: ?  
Principal Investigator 1 Team

admin office: ?

protocol:  
e of protocol

tle: ?  
Protocol

Compare current state of version:

3.0 Amendment AM02-25-03-24-02 closed (Approved)

with

2.0 Amendment AM01-25-03-24-02 closed (Approved)

5/1/2025 3:58:14 PM ▼

| Version | Description                                  | Date                  |
|---------|----------------------------------------------|-----------------------|
| 3.0     | Amendment AM02-25-03-24-02 closed (Approved) | 7/22/2025 7:44:38 AM  |
| 2.0     | Amendment AM01-25-03-24-02 closed (Approved) | 5/1/2025 3:58:14 PM   |
| 1.0     | Approved                                     | 3/24/2025 10:44:22 AM |
| 0.1     | Submitted to IACUC                           | 3/24/2025 10:37:59 AM |
| 0.0     | [No description]                             | 3/24/2025 10:14:43 AM |

## Reviewing Experiments

1. Click on Experiments in the left side navigation to quickly jump to that section of the protocol.
  - a. Question 2 and 3 describe if there are multiple surgical events done on one animal.
  - b. Question 4 describes the protocol humane endpoints. If the protocol describes chronic conditions or conditions that cause persistent clinical signs (pain category E), add justification for allowing clinical signs to persist instead of humanely euthanizing the animals.

### Experiments ?

1. \* Define the experiments to be used in this protocol:

| Name         | Species | Is USDA | Total | Pain Category            | Common Procedures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------|---------|---------|-------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| experiment 1 | Mouse   | no      | 100   | B: 0, C: 100, D: 0, E: 0 | <ul style="list-style-type: none"> <li>Blood Collection - Single or Multiple - Mouse (Standard - Tissue/Blood Collection)</li> <li>Substance Administration - Euthanasia - Mouse (Standard - Substance Administration)</li> <li>Substance Administration - Anesthesia - Mouse (Standard - Substance Administration)</li> <li>Agent administration (Team - Substance Administration)</li> <li>Euthanasia - Chemical - Mouse (Standard - Euthanasia)</li> <li>Genotyping and Identification - Mouse (Standard - Tissue/Blood Collection)</li> </ul> |

2. If the experiments include survival surgery, will any single animal undergo more than one survival surgery? (include any animal that underwent surgery prior to use on this protocol) ?

☒ Yes ☐ No

3. \* Describe the order of and time interval between surgical procedures on a single animal:

Order and time interval of surgeries.

\* Provide scientific justification for multiple survival surgical procedures on a single animal:

Scientific justification for multiple surgical events.

\* Specify how many animals will undergo multiple survival surgeries:

How many animals will undergo multiple minor or major surgeries?

4. If the animal will experience more than momentary unrelieved pain and/or distress, justify. Otherwise state "No":

If the protocol describes chronic conditions or conditions that cause persistent clinical signs and is considered category E for these reasons, add justification for allowing clinical signs to persist instead of humanely euthanizing the animals.

2. Click the experiment name in Question 1 to open a panel that will slide in from the right side of your screen. The slide-in panel provides further experimental details that you can scroll through.
  - a. Question 3 contains a detailed description of the experiment.
  - b. Question 5 provides a list of related procedures. Click the procedure name to open the procedure workspace in a new window where you can view detailed information. Learn more about [Reviewing Procedures](#) on the next page.

The screenshot shows the LAMS Experiments interface. On the left is a sidebar with a menu. The main area is titled 'Experiments' and contains several questions. A 'View Experiment' panel is open on the right, showing details for 'experiment 1'.

**Experiments Menu:**

- Basic Information & Funding
  - Basic Information
  - Experimental Research Protocol Addition
  - Protocol Team Members
  - Funding Sources
- Experimental Design
  - Scientific Aims
  - Experiments**
  - Blood Collection - Single or Multiple - Mouse (Standard - Tissue/Blood Collection)
    - Procedure Identification
    - Tissue/Blood Collection
    - Procedure Documents
  - Substance Administration - Euthanasia - Mouse (Standard - Substance Administration)
    - Procedure Identification

**Experiments Questions:**

- Define the experiments to**  
Name:  Species:  Is USDA:   
experiment 1 mouse no
- If the experiments include s**  
(include any animal that un  
☐ Yes ☐ No
- Describe the order of and**  
Order and time interval of surgeries  
**Provide scientific justifica**  
Scientific justification for multiple s  
**Specify how many animal**  
How many animals will undergo m
- If the animal will experience**  
If the protocol describes chronic co

**View Experiment Panel:**

- Experiment name:**  
experiment 1
- Species:**  
Mouse
- Describe the experiment:** (Include justification of the purpose of the experiment):  
Provide purpose for experiment-include a summary sentence or two explaining why the experiment is being performed and the value that it adds.  
Provide a clear, concise, and sequential description of what will happen to the animals.  
Provide an outline of the procedures/manipulations performed on each group. List the number of animals per group, number of groups per study, and maximum duration on the study. Note that details of the specific procedures will be in Q5.
- Justify the number of animals to be involved in this experiment.** (Justify each group size using literature citation or power analysis):  
Justify group size or "N" using literature citation or power analysis.
- Select common procedures:** (applied to all animals in the experiment)
 

| Name                                          | Type                     | Version | Scope    |
|-----------------------------------------------|--------------------------|---------|----------|
| Euthanasia - Chemical - Mouse                 | Euthanasia               | 5       | Standard |
| Agent administration                          | Substance Administration | 2       | Team     |
| Substance Administration - Anesthesia - Mouse | Substance Administration | 2       | Standard |
| Substance Administration - Euthanasia - Mouse | Substance Administration | 3       | Standard |
| Blood Collection - Single or Multiple - Mouse | Tissue/Blood Collection  | 4       | Standard |
| Genotyping and Identification - Mouse         | Tissue/Blood Collection  | 5       | Standard |
- Total number of animals used in this experiment:**  
100

- c. Question 8 describes any husbandry exceptions to LAMS standard practices. These include single housing for social animals, non-standard caging, medicated water/special diet, withholding enrichment, acclimation waiver, do not disturb, and extended weaning.
- d. Question 10 describes humane endpoints and monitoring. This includes expected adverse effects such as clinical signs and symptoms, how and when you will monitor, when to contact LAMS for consultation, and when the experiment is terminated and animals are euthanized.

Sometimes, questions 9 and 10 appear blank due to a system bug that will be fixed in the next upgrade. See [Appendix 3: View Missing Content for Experiment Questions 9 & 10](#) for viewing instructions.

The screenshot shows the LAMS Experiments interface with questions 8, 9, and 10. Question 8 is highlighted with a blue box.

**8. Identify husbandry exceptions:**

| Exception Type    | Description and Justification         |
|-------------------|---------------------------------------|
| View Special Diet | Provide description and justification |

**9. Describe the maximum number of procedures an animal will experience:**  
Provide the maximum number of procedures per procedure category (listed in Q5)

**10. Describe expected adverse clinical signs/symptoms, frequency of monitoring, and criteria for removal from the experiment and/or euthanasia:**  
Describe expected adverse effects including clinical signs and symptoms, how and when you will monitor, when you will contact LAMS for consultation, and when experiment is terminated and animals are euthanized.

## Reviewing Procedures

1. In the procedure workspace, click the View Procedure button to see more details.

The screenshot shows the AOPS (Animal Operations Procedure System) Dashboard. The top navigation bar includes links for Dashboard, AOPS, IRB, and IACUC. Below this, there are tabs for Submissions, Standard Library, Concerns, Facilities, Reports, and Help Center. The main content area displays the procedure ID 'PROC00009328' and the title 'Adrenalectomy - Mouse'. On the left, there is a sidebar with 'Active' status and 'Next Steps' including 'View Procedure' and 'Printer Version'. The procedure details on the right include: Procedure type: Survival Surgery, Procedure scope: Standard, Species: Mouse, Version: 2, Coordinator: (blank), and Approval date: 7/31/2023.

2. Surgery procedures describe details in the Survival Surgery section of the procedure form:
  - a. Question 1: procedure name
  - b. Question 2: detailed description of the surgical procedure
  - c. Question 3: aseptic preparation of the animal, surgeon and instruments
  - d. Question 4: anesthetics and analgesics, including the level of analgesia
    - i. Click the procedure name to see details (e.g. analgesia level 2 moderate)
  - e. Question 5: post-operative care and monitoring, including how often animals should be monitored, what specific care is required, and more.

The screenshot shows the 'Survival Surgery' section of the procedure form. The left sidebar contains links for Procedure Identification, Survival Surgery (highlighted), and Procedure Documents. The main content area is titled 'Survival Surgery' and includes the following sections:

- 1. \* Surgery type:** Major
- 2. \* Describe the surgical procedure:**

Bilateral flank incisions (dorsolateral incision in the area between last rib and hip bone) are made. The adrenal gland with attached fat pad is visualized. The adrenal gland is dissected and excised (no cautery or ligatures are required) and fat pad returned to the abdominal cavity. The process is repeated on the other side. Incisions are closed in two layers (inner layer with absorbable suture; skin with wound clips [or non-absorbable suture]). Alternatively, a single dorsal midline incision is made and the abdominal cavity entered lateral to the incision. The adrenal gland with attached fat pad is exteriorized. The adrenal gland is dissected and fat pad returned to the abdominal cavity. The process is repeated on the opposite site. The skin incision is closed with wound clips (or non-absorbable suture).
- 3. \* Describe how the animal, surgeon and instruments will be prepared for aseptic surgery:**

ACUP surgery, anesthesia and analgesia guidelines will be followed.

Animal Prep: hair removal followed by alternating scrubs of povidone iodine or chlorhexidine and 70% ethanol repeated 3 times.

Surgeon Prep: clean lab coat, surgical scrubs or disposable gown; mask; sterile surgical gloves. Hair bonnet/cap is recommended.

Instrument Prep: Instruments will be steam (e.g., autoclave) or gas (e.g., ethylene oxide) sterilized initially. Some items may come sterile from the manufacturer or may require chemical sterilization according to directions from the manufacturer.

If batch surgeries are performed, instruments will be sterilized between animals via glass bead sterilization. A new surgical pack will be used following the 5th animal.
- 4. Select the anesthesia and analgesia procedures to be used:**

| Name                                                            | Type                     | Version | Scope    |
|-----------------------------------------------------------------|--------------------------|---------|----------|
| Substance Administration - Analgesia Level 2 - Moderate - Mouse | Substance Administration | 3       | Standard |
| Substance Administration - Anesthesia - Mouse                   | Substance Administration | 2       | Standard |
- 5. Describe post-operative care and monitoring:** (immediate post-operative and daily thereafter)
 

During and immediately following surgery, animals will receive supplemental heat (e.g., circulating warm water blanket or equivalent to prevent thermal injury) until they regain consciousness. Animals will be continuously monitored until sternal. Wet chow or hydrogel may be provided post-operatively. Animals are maintained on 0.9% saline drink for the duration of the experiment. Saline drink must be included as a husbandry exception in the associated experiments as well as added to an associated substance administration smartform. The animal will receive analgesics as described in the Substance Administration-Analgesia SmartForm. Animals will be checked for at least 3-5 days following surgery to monitor (and document) the surgical site(s) and incision(s), general health (hydration, posture, activity level, body condition) and analgesic administration. Note: 3 days is the minimum requirement. If animal is still experiencing adverse effects from the surgery, monitoring must be continued as long as necessary. Post-op medication (i.e. analgesia and/or antibiotics) will be provided as long as necessary as per veterinarian recommendation. Suture or wound clips will be removed in 10-14 days. LAMS Veterinary staff will be consulted if there are any clinical concerns or adverse events associated with this procedure.

3. Substance Administration procedures describe details in the Administration of Substances section of the procedure form:
  - a. Question 1: substance name, administration route, dosing and frequency, volume, how and why the substance is used, and substance grade (pharmaceutical grade or not)
  - b. Question 2: detailed description of the administration procedure

**Administration of Substances**

Need to create a new substance? Use the "Create Substance" button in your Research Team: [Principal Investigator 1 Team](#)

**1. \* Substances:**

| Substance | Substance Scope | Route | Other Route | Dose                         | Dosage Frequency            | Concentration | Volume                                         | Purpose                                                                 | Pharma Grade                                                        |
|-----------|-----------------|-------|-------------|------------------------------|-----------------------------|---------------|------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------|
| Tamoxifen | Standard        | Other |             | up to dose in mg/kg by route | Up to X for up to how long? | as needed     | maximum volume by route or refer to guidelines | Briefly provide why you need this substance, what are you using it for. | Pick one: Yes, No-not available, No-incorrect formulation, No-other |

**2. \* Describe step-by-step the procedure for administering the substance: ?**

- SC or IP: Animal is gently restrained, and injection is given.
- IV (tail vein): Animal will be manually or mechanically restrained, and the injection is given. Following injection, pressure is applied to the injection site with sterile gauze until bleeding stops.
- IV (retroorbital under anesthesia): Animal is anesthetized, and the injection is given. Following injection, pressure is applied to the injection site with sterile gauze until bleeding stops. If multiple injections are necessary, injections are given in alternating eyes.
- Oral gavage: Animal is gently restrained, the oral gavage needle/tube is inserted, the substance is administered, and needle/tube removed.
- Substance administered during a surgical procedure: Substance administration description is provided in the associated surgical procedure.
- Food/water administration

### Reviewing your Protocol Using the Printer Version Button

1. On the protocol page, click the "Printer Version" button, then select the Submission Details option on the slide-in panel and click the Print button. This will open protocol details in a new window.

**Animal Use Protocol**

Principal investigator: Principal Investigator 1  
 Submission type: New Protocol Application  
 Primary contact:  
 IACUC coordinator:  
 Consulted vet:  
 Effective date: 7/22/2025  
 Admin office: IACUC  
 PI proxies:  
 There are no items to display  
 Related animal protocol: 25-03-24-02: An

**Next Steps**

- View Protocol
- Printer Version**
- Create Amendment
- Publish To Animal Operations
- Request Closure
- Assign Primary Contact

**Choose the Items to Print**

- ☒ **Submission Details**  
Includes table of contents, relevant SmartForm pages, and details of experiments and procedures.
- ☐ **Default**  
This is a default packet option which just prints the SmartForm in the current path

**Print** **Cancel**

| Benefits                                                                                                                                                                                                                                                   | Drawbacks                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>You can scroll through the entire protocol.</li> <li>Experiments are fully expanded to show all details</li> <li>Procedures are fully expanded to show all details</li> <li>Use Ctrl-F to find keywords.</li> </ul> | <ul style="list-style-type: none"> <li>A lot of extra language and duplication of unnecessary information.</li> <li>Not actually printable. <b>Do NOT print in this form as each section prints on a different page.</b> Contact the <a href="#">IACUC Office</a> for a printable version in Word.</li> </ul> |

## Create and Submit an Amendment

To make changes to your approved IACUC protocol, you must create and submit an amendment, which is subject to review and approval by the IACUC.

1. Select the “IACUC” tab, then select the “Active” tab on your main workspace. Click on the ID or Name of the IACUC protocol you want to edit.

The screenshot shows the IACUC Submissions page. The top navigation bar includes Dashboard, IRB, Animal Operations, IACUC, and Animal Operations. Below this is a secondary navigation bar with Submissions, Standard Library, Concerns, Facilities, Reports, and Help Center. The main content area is titled 'Submissions' and features a search bar. On the left, there are buttons for 'Create Concern', 'Create Research Team', and 'Create Protocol'. The main table has tabs for Research Teams, In-Review, Active, Archived, and All Submissions. The 'Active' tab is selected. Below the tabs, there is a 'Filter by' dropdown set to 'ID' and a search input field. A table of submissions is displayed with columns: ID, Name, Date Modified, State, Submission Type, PI First Name, and PI Last Name. The first row is highlighted with a blue border: ID 01-02-03-04, Name Example Protocol, Date Modified 8/5/2021 5:06, State Approved, Submission Type New Protocol Application, PI First Name Jane, and PI Last Name Doe.

2. On the protocol workspace, select the Create Amendment button on the left side of your screen.

The screenshot shows the IACUC protocol workspace for 'Example Protocol'. The top navigation bar is the same as the previous screenshot. The main content area is titled 'Example Protocol' and includes a 'Next Steps' sidebar on the left with buttons for 'View Protocol', 'Printer Version', 'Create Annual Review', 'Create Triennial Review', and 'Create Amendment' (highlighted with a blue border). The main area displays protocol details: Principal investigator: Jane Doe, Submission type: New Protocol Application, Primary contact: IACUC coordinator, Consulted vet: Admin office: IACUC, PI proxies: There are no items to display. On the right, there is a 'Letter' section with a document icon and the text 'Correspondence\_for\_01-02-03-04.doc(0.01) ...'. Below this, protocol details are listed: Protocol type: Experimental Research, Approval date: 5/28/2021, Effective date: 5/28/2021, Last day of annual review period: 5/14/2023, and Last day of triennial approval period: 5/14/2023. At the bottom, a workflow diagram shows the stages: Pre-Submission, Pre-Review, IACUC Review, Post-Review, and Review Complete (highlighted with a blue border).

3. Answer 3 questions in the Amendment Summary section, then press the Continue button to advance.

The screenshot shows the 'Creating New: IACUC Submission' form. The left sidebar has a button for 'Amendment Summary'. The main content area is titled 'Amendment Summary' and includes a note: 'Only one amendment can be active at one time.' Below this, there is a table for 'Active follow-on submissions for this protocol' with columns: ID, Name, Date Modified, and State. The table is empty. The form contains three numbered questions: 1. \* Amendment short title: (with a question mark icon), 2. \* Describe the changes: (with a question mark icon), and 3. \* Describe the rationale for changes: (with a question mark icon). Each question has a text input field.

- **Amendment short title:** change title to reflect a summary of the amendment.
- **Describe the changes:** provide a brief description of your change request.
- **Describe the rationale for the changes:** provide a reason for your change request.

4. You now have the ability to edit each section of your IACUC protocol. After saving all changes, press the “Exit” or “Finish” button to close the form and return to the amendment workspace.
- Refer to the [Create a New or Triennial IACUC Protocol](#) section of this manual for information on how to complete each section of the protocol form.
  - Refer to [Appendix 1: Protocol Writing Examples](#) and [Appendix 2: Preferred Language and Definitions](#) for helpful examples and resources.
  - Refer to [Create a New Version of a Team Procedure](#) to amend procedures.

We strongly recommend following these basic guidelines when editing an IACUC protocol:

- Review the RAP Standard Library of substances and procedures before creating/copying a non-standard (team) substance and/or procedure (see [Substances and Procedures](#)).
  - All required form fields are denoted by a **red asterisk (\*)**.
  - **You must use the “Save”, “Continue”, or “Finish” buttons to save your changes. Switching sections without saving or pressing the “Exit” button will not save any changes.**
5. On the amendment workspace, select the “Submit” button on the left side of your screen to open a popup window. **IACUC processing cannot begin until the amendment is submitted.**

The screenshot shows the 'Pre-Submission' workspace for an amendment with ID AM01-01-02-03-04. On the left, a sidebar contains buttons for 'Edit Amendment', 'Printer Version', 'Submit' (highlighted with a red box), 'Manage Ancillary Reviews', 'Add Comment', and 'Discard'. The main area is titled 'Example amendment' and lists details: Principal investigator: Jane Doe, Submission type: Amendment, Primary contact: IACUC coordinator, and Admin office: IACUC. Below this is a flowchart showing the process: Pre-Submission (orange oval) leads to Pre-Review (white oval), which can lead to IACUC Review (white oval) or Clarification Requested (white oval). IACUC Review can lead to Clarification Requested (white oval) or back to Pre-Review (white oval). Clarification Requested can lead back to Pre-Review (white oval) or forward to IACUC Review (white oval).

6. Carefully review each confirmation statement and provide comments or supporting documents if necessary. Press the OK button to submit the amendment and close the popup window.

The screenshot shows the 'Submit' popup window. It has a title bar that says 'Execute "Submit" on AM01-01-02-03-04 - Google Chrome'. The URL bar shows 'rcp-qa.uc.edu/IACUC\_Candidate/sd/ResourceAdministration/Activity/form?A...'. The main content area has a header 'Submit' and a section 'As the principal investigator, I certify that:' followed by three horizontal lines for text entry. Below this are two sections: '1. Comments: ?' with a text area, and '2. Supporting documents: ?' with an '+ Add' button and a table with columns 'Document Name' and 'Date Modified'. The table is empty, with the text 'There are no items to display' below it. At the bottom right are 'OK' and 'Cancel' buttons, with 'OK' highlighted by a blue box.

## Jumping Between IACUC and AOPS

- There are 2 areas of the RAP website that each have unique functions:
  - [IACUC RAP](#) - protocol and personnel management
  - [AOPS RAP](#) - animal census and LAMS services
- On the IACUC protocol page, there is a link to the related animal (AOPS) protocol. This facilitates a seamless connection between the two areas of RAP (may require login again).

**Approved** 25-03-24-02

### Animal Use Protocol

**Next Steps**

- View Protocol
- Printer Version
- Create Amendment
- Publish To Animal Operations
- Request Closure

**Principal investigator:** Principal Investigator 1  
**Submission type:** New Protocol Application  
**Primary contact:**  
**IACUC coordinator:**  
**Consulted vet:**  
**Effective date:** 7/22/2025  
**Admin office:** IACUC  
**PI proxies:** There are no items to display  
**Related animal protocol:** 25-03-24-02: Animal Use Protocol

**Letter:** Correspondence\_for\_25-03-24-02.pdf(0.02) ...  
**Protocol type:** Experimental Research  
**Approval date:** 3/24/2025 (25-03-24-02 - Animal Use Protocol )  
**Latest approval date:** 7/22/2025 (AM02-25-03-24-02 - Amendment for 25-03-24-02) ...  
**Last day of annual review period:**  
**Last day of triennial approval period:** 3/24/2028

## Offspring Reporting

- Must be submitted through [AOPS RAP](#) monthly and notify the [IACUC Office](#) to let us know that you will be reporting offspring in this manner per [Rodent Colony Management Guidelines](#).
- On your AOPS protocol page, click the Update Breeding Information link in the left navigation to open the Update Breeding Information form in a popup window.

**Approved** 25-03-24-02

### Animal Use Protocol

**Next Steps**

- View Protocol
- Printer Version
- Order Animals
- Transfer/Export Animals
- Report Animal Event
- Request Service
- Reserve Procedure Room
- Reserve Cage Cards
- Modify Cage Cards
- Update Breeding Information

**Approved:** 100  
**Used:** 14  
**On Order:** 0  
**Available:** 86  
**Cage cards on Census:** 0

**Approval Date:** 5/1/2025  
**Expiration Date:** 3/24/2028  
**Created by:** System Administrator  
**Principal Investigator:** Principal Investigator 1  
**Parent Protocol:**

**Related IACUC submission:** 25-03-24-02: Animal Use Protocol

| Animal Groups              | History | Animal Orders | Transfers and Exports | Service Requests | ...    |        |            |             |             |                 |
|----------------------------|---------|---------------|-----------------------|------------------|--------|--------|------------|-------------|-------------|-----------------|
| Group                      | Species | # Births      | # Weaned              | # Culled         | # Used | % Used | # On Order | # Available | % Available | Pain Category   |
| View Mouse-Pain Category C | Mouse   | 10            | 0                     | 0                | 14     | 14     | 0          | 86          | 86          | Pain Category C |

3. In the Update Breeding Information form, Question 1 (breeding information) displays the species and number of animals currently approved on your protocol. Click the Update button in Question 1 next to the species for which you want to report offspring. In the Edit Breeding History slide-in panel, enter the number of animals you are reporting in Question 2 (births), then click the OK button in the bottom right.

**Update Breeding Information**

Provide updated breeding information since the last reported breeding update.

Last Breeding Update: 5/2/2025

**1. Breeding Information:**

| Animal Group          |
|-----------------------|
| Mouse-Pain Category C |

**2. Comments:**

**Edit Breeding History**

**1. Animal Group**  
Mouse-Pain Category C

**2. Births:**  
10

**3. Total Approved:**  
100

**4. Total Available:**  
100

\* Required

OK Cancel

4. In the Update Breeding Information form, add any comments that you may have to Question 2, then click the OK button in the bottom right corner to complete.

**Update Breeding Information**

Provide updated breeding information since the last reported breeding update.

Last Breeding Update: 5/2/2025

**1. Breeding Information:**

| Animal Group          | New Births | Total Approved | Total Available |
|-----------------------|------------|----------------|-----------------|
| Mouse-Pain Category C | 10         | 100            | 100             |

**2. Comments:**

OK Cancel

- The reported births are now documented on the AOPS protocol in the Animal Groups tab, and the number of animals available has been updated. **This is a great place to track animal usage!**

The screenshot shows the AOPS interface with the following components:

- Navigation Bar:** Dashboard, IRB, IACUC, AOPS (selected), Facilities. Sub-navigation: Bulk Activations, Bulk Deactivations, Protocols, Orders (selected), Transfers, Service Requests, Cage Cards, and a menu icon.
- Header:** 25-03-24-02, Animal Use Protocol, Follow, Help.
- Left Sidebar (Next Steps):**
  - Approved (orange button)
  - View Protocol (blue button)
  - Printer Version (blue button)
  - Order Animals (blue button)
  - Transfer/Export Animals (blue button)
  - Report Animal Event (blue button)
  - Request Service (blue button)
  - Reserve Procedure Room (blue button)
- Main Content Area:**
  - Protocol Summary:**
    - Approved: 100, Used: 14, On Order: 0, Available: 86, Cage cards on Census: 0
    - Approval Date: 5/1/2025, Expiration Date: 3/24/2028, Created by: System Administrator, Principal Investigator: Principal Investigator 1, Parent Protocol:
  - Related IACUC submission:** 25-03-24-02: Animal Use Protocol
  - Animal Groups Tab:**

| Group                      | Species | # Births | # Weaned | # Culled | # Used | % Used | # On Order | # Available | % Available | Pain Category   |
|----------------------------|---------|----------|----------|----------|--------|--------|------------|-------------|-------------|-----------------|
| View Mouse-Pain Category C | Mouse   | 10       | 0        | 0        | 10     | 10     | 0          | 90          | 90          | Pain Category C |

## LAMS Services

- Veterinary Services:** In addition to providing veterinary care and oversight of your animals, LAMS veterinary staff also provide the following services:
  - Anesthesia machine rental
  - Surgical supplies (e.g. clippers, scales, warm water blankets)
  - Surgical packs
  - Review of expected clinical symptoms (ECS) and related treatment plans
  - Handling and techniques training
- Husbandry Services:** In addition to providing animal husbandry and LAMS facility oversight, LAMS husbandry staff also provide and/or work with research staff to implement or delegate the following services:
  - Animal ordering
  - Using hazards in LAMS
  - Transportation
  - Import/Export Quarantine
  - Special requests:
    - Special caging or bedding requests
    - Special diet/water requests
    - Alternate light cycle/do not enter room requests

## RAP Navigation Tips

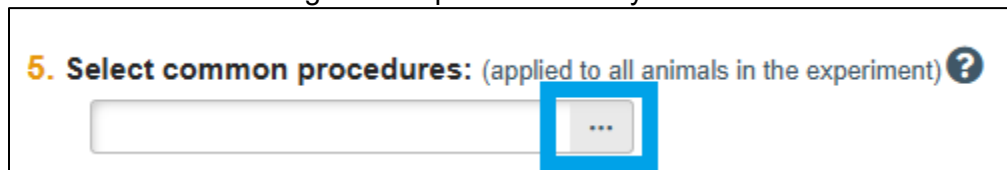
### Clickable Contents

In this system, anything with red or blue lettering is clickable.

- Click a column header to sort the contents ascending or descending.
- Clicking the name of a protocol, procedure, or substance will open its contents for viewing.

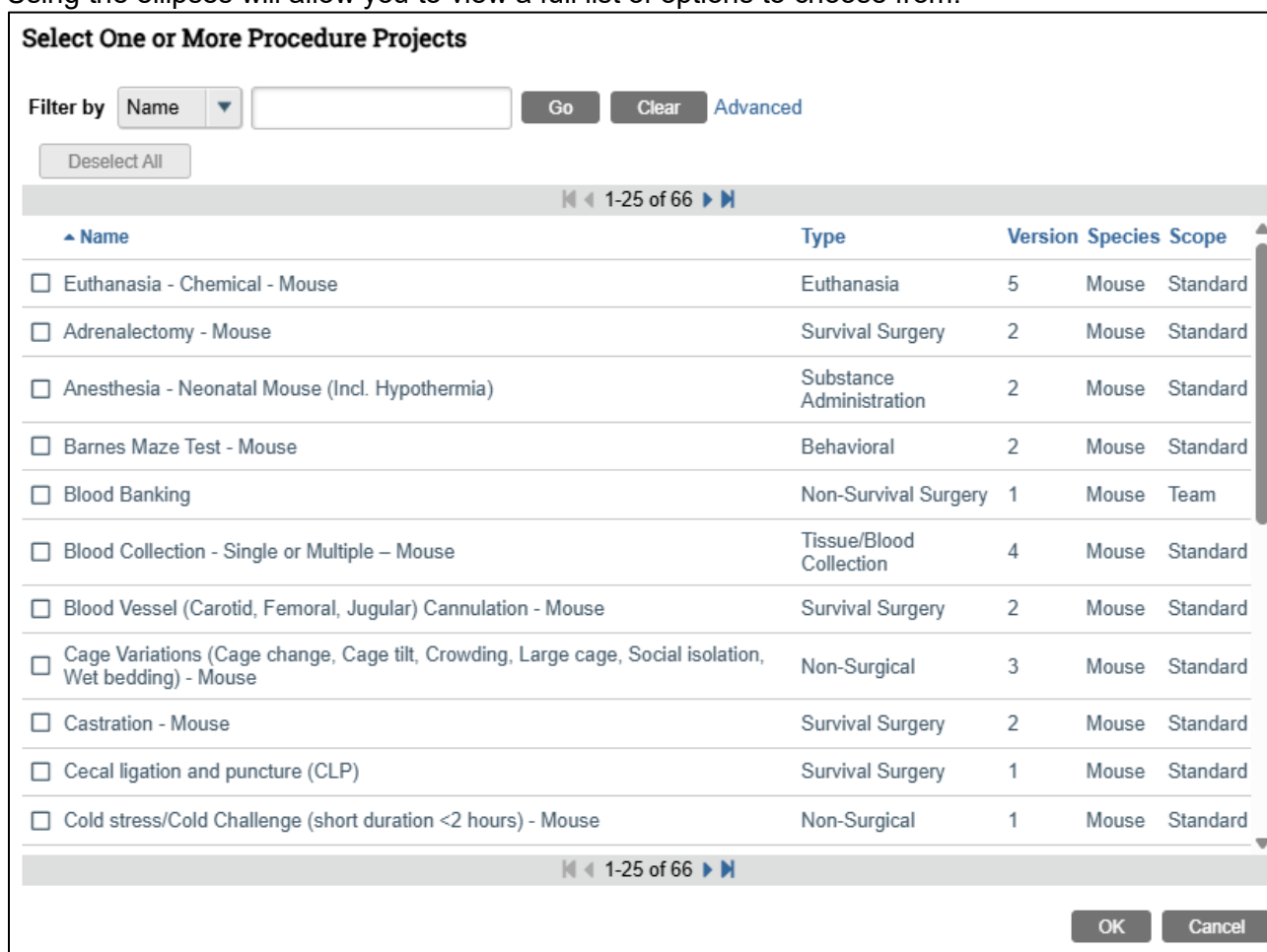
### Viewing and Scrolling Lists Using Ellipses (...)

1. Several locations throughout the protocol forms you will find a search box with an ellipses button.



5. **Select common procedures:** (applied to all animals in the experiment) ?

2. Using the ellipses will allow you to view a full list of options to choose from.



**Select One or More Procedure Projects**

Filter by    [Advanced](#)

1-25 of 66

| Name                                                                                                                           | Type                     | Version | Species | Scope    |
|--------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------|---------|----------|
| <input type="checkbox"/> Euthanasia - Chemical - Mouse                                                                         | Euthanasia               | 5       | Mouse   | Standard |
| <input type="checkbox"/> Adrenalectomy - Mouse                                                                                 | Survival Surgery         | 2       | Mouse   | Standard |
| <input type="checkbox"/> Anesthesia - Neonatal Mouse (Incl. Hypothermia)                                                       | Substance Administration | 2       | Mouse   | Standard |
| <input type="checkbox"/> Barnes Maze Test - Mouse                                                                              | Behavioral               | 2       | Mouse   | Standard |
| <input type="checkbox"/> Blood Banking                                                                                         | Non-Survival Surgery     | 1       | Mouse   | Team     |
| <input type="checkbox"/> Blood Collection - Single or Multiple – Mouse                                                         | Tissue/Blood Collection  | 4       | Mouse   | Standard |
| <input type="checkbox"/> Blood Vessel (Carotid, Femoral, Jugular) Cannulation - Mouse                                          | Survival Surgery         | 2       | Mouse   | Standard |
| <input type="checkbox"/> Cage Variations (Cage change, Cage tilt, Crowding, Large cage, Social isolation, Wet bedding) - Mouse | Non-Surgical             | 3       | Mouse   | Standard |
| <input type="checkbox"/> Castration - Mouse                                                                                    | Survival Surgery         | 2       | Mouse   | Standard |
| <input type="checkbox"/> Cecal ligation and puncture (CLP)                                                                     | Survival Surgery         | 1       | Mouse   | Standard |
| <input type="checkbox"/> Cold stress/Cold Challenge (short duration <2 hours) - Mouse                                          | Non-Surgical             | 1       | Mouse   | Standard |

1-25 of 66

## Easy Filtering and Searching

1. Use the filter dropdown menu to sift through a large amount of information to find and focus on only what you need. Use the Add Filter button to apply multiple filters at a time.

| Procedures In-Review   Procedures   Substances   History   Archived Procedures   ... |  |               |                                |                |         |                   |             |       |                          |
|--------------------------------------------------------------------------------------|--|---------------|--------------------------------|----------------|---------|-------------------|-------------|-------|--------------------------|
| Filter by ?                                                                          |  | ID            | Enter text to search for       |                | Q       | + Add Filter      | X Clear All |       |                          |
| ID                                                                                   |  | ID            |                                |                |         |                   |             |       |                          |
|                                                                                      |  | Name          |                                |                |         |                   |             |       |                          |
| PROC000093                                                                           |  | Date Modified | ia - Rat                       | [Edit or View] | Actions | 8/8/2026 10:14 AM | Active 2    | Rat   | Euthanasia               |
| PROC000093                                                                           |  | Version       | ia - Mouse                     | [Edit or View] | Actions | 8/8/2026 10:14 AM | Active 3    | Mouse | Euthanasia               |
| PROC000093                                                                           |  | Species       | atal Mouse (Incl. Hypothermia) | [Edit or View] | Actions | 8/8/2026 10:14 AM | Active 2    | Mouse | Substance Administration |

| Procedures In-Review   Procedures   Substances   History   Archived Procedures   Archived Substances |  |                                                                                      |             |                |         |                     |             |     |                          |
|------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------|-------------|----------------|---------|---------------------|-------------|-----|--------------------------|
| Filter by ?                                                                                          |  | Procedure Type                                                                       | substance   |                | Q       | + Add Filter        | X Clear All |     |                          |
| and by                                                                                               |  | Species                                                                              | rat         |                |         | X Remove Filter     |             |     |                          |
| ID                                                                                                   |  | Name                                                                                 |             |                |         |                     |             |     |                          |
| PROC00009386                                                                                         |  | Substance Administration - Euthanasia - Rat                                          |             | [Edit or View] | Actions | 8/4/2026 10:14 AM   | Active 3    | Rat | Substance Administration |
| PROC00009346                                                                                         |  | Substance Administration for Metabolic/Lipid Tolerance Tests - GTT/ITT/PTT/LTT - Rat |             | [Edit or View] | Actions | 8/1/2026 10:14 AM   | Active 5    | Rat | Substance Administration |
| PROC00009306                                                                                         |  | Substance Administration - Analgesia Level 3 - Severe - Rat                          |             | [Edit or View] | Actions | 7/28/2026 10:14 AM  | Active 3    | Rat | Substance Administration |
| PROC00009298                                                                                         |  | Substance Administration - Analgesia Level 2 - Moderate - Rat                        |             | [Edit or View] | Actions | 7/28/2026 10:14 AM  | Active 3    | Rat | Substance Administration |
| PROC00009292                                                                                         |  | Substance Administration - Analgesia Level 1 - Mild - Rat                            |             | [Edit or View] | Actions | 7/28/2026 10:14 AM  | Active 3    | Rat | Substance Administration |
| PROC00009300                                                                                         |  | Substance Administration - Analgesia Level 0 - Minimal (up to 12 hours) - Rat        |             | [Edit or View] | Actions | 7/28/2026 10:14 AM  | Active 2    | Rat | Substance Administration |
| PROC00009238                                                                                         |  | Substance Administration - Anesthesia - Rat                                          |             | [Edit or View] | Actions | 7/18/2026 10:14 AM  | Active 2    | Rat | Substance Administration |
| PROC00010598                                                                                         |  | Substance Administration-Perfusion-Rat                                               |             | [Edit or View] | Actions | 11/22/2023 11:07 AM | Active 3    | Rat | Substance Administration |
| 8 items                                                                                              |  |                                                                                      | page 1 of 1 |                |         | 25 / page           |             |     |                          |

2. You can perform a partial search of data using the wildcard symbol (%).
  - a. Example: searching for %glu on the substances tab will result in a list of results with “glu” anywhere in the name.

| Procedures   Substances   History   Archived Procedures   Archived Substances |  |                                                                                                                             |      |  |   |              |             |  |  |
|-------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------|------|--|---|--------------|-------------|--|--|
| Filter by ?                                                                   |  | Name                                                                                                                        | %glu |  | Q | + Add Filter | X Clear All |  |  |
| ID                                                                            |  | Name                                                                                                                        |      |  |   |              |             |  |  |
| SUBST00003137                                                                 |  | Modulators of Glutamate Receptor Signaling (e.g. Flumazenil, bicuculline, baclofen, AMPA, MGluRs, NMDA, Ibotenate, kainate) |      |  |   |              |             |  |  |
| SUBST00003126                                                                 |  | Skin glue/tissue adhesive (e.g. vet bond)                                                                                   |      |  |   |              |             |  |  |
| Subst0640                                                                     |  | Glucose and related carbohydrates (e.g. simple sugars, disaccharides)                                                       |      |  |   |              |             |  |  |
| SUBST00002823                                                                 |  | Amino acids (e.g. leucine, L-arginine, cystine, glutamine)                                                                  |      |  |   |              |             |  |  |
| Subst0189                                                                     |  | 2-Deoxyglucose                                                                                                              |      |  |   |              |             |  |  |
| SUBST00002425                                                                 |  | Calcium Gluconate                                                                                                           |      |  |   |              |             |  |  |

? Help

As you navigate through the RAP system you will see a  Help button located throughout. Click on the question mark to view additional guidance, definitions, and short instructional videos.



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Hello, Principal Investigator 1 ▾

» DashboardAOPSIIRB

IACUC

SubmissionsStandard LibraryConcernsFacilitiesReportsHelp Center

Active

Next Steps

Edit Research Team

Create Protocol

Create Procedure

Create Substance

Send Training Expiration Reminder

TEAM00000167

Principal Investigator 1 Team

Principal investigator: Principal Investigator 1  
Phone:  
E-mail:

Create Building Blocks

Create and Submit a Protocol

Print Projects

Track Review Progress

SubmissionsProceduresSubstancesHistoryResearch Team Contacts

Filter by ID ID Enter text to search for + Add Filter X Clear All

| ID          | Name                | Date Modified      | State          | Submission Type          |
|-------------|---------------------|--------------------|----------------|--------------------------|
| 25-03-24-02 | Animal Use Protocol | 8/20/2026 5:06 PM  | Approved       | New Protocol Application |
| 26-07-09-01 | Animal Use Protocol | 7/9/2026 9:37 AM   | Pre-Submission | New Protocol Application |
| 25-03-24-01 | Short title         | 3/24/2025 10:10 AM | Discarded      | New Protocol Application |

3 items page 1 of 1 25 / page



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ValidateCompare

Editing: 26-07-09-01

Go to forms menuPrintHelp

Basic Information

Experimental Research Protocol Addition

Protocol Team Members

Funding Sources

Basic Information

1. \* Select research team ?  
Principal Investigator 1 Team

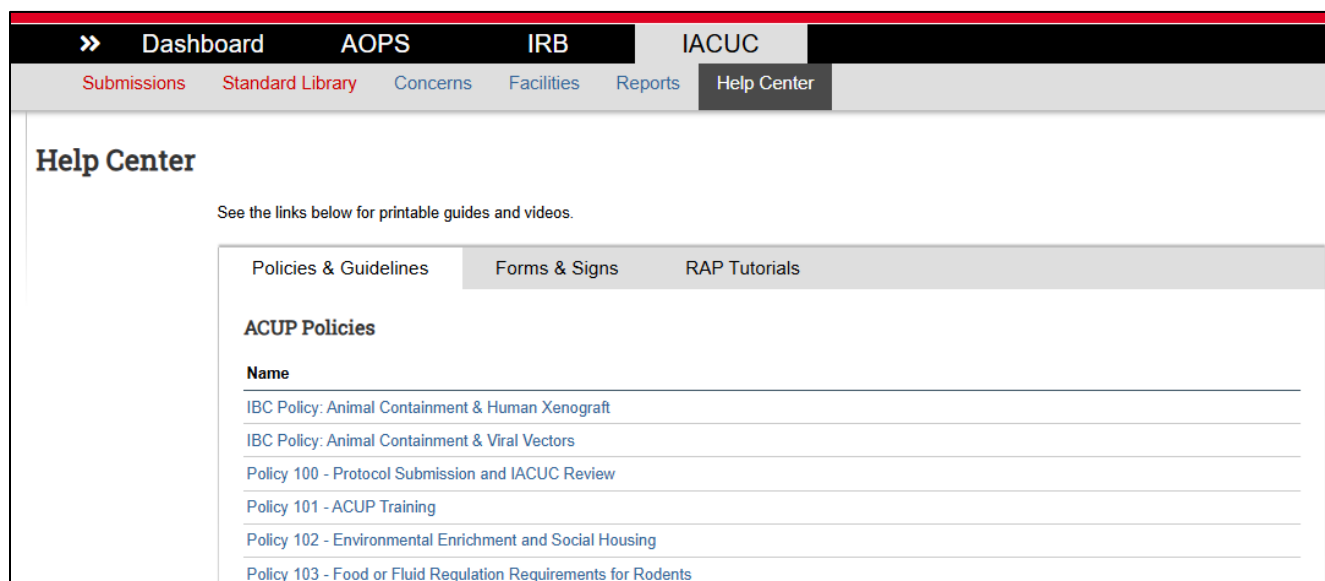
2. \* Select admin office ?  
IACUC  
Clear

## Where to Get Help

Animal Care and Use Program (ACUP) policies, guidelines, forms, signs, and IACUC/AOPS RAP tutorials are available in many convenient locations. [Bookmark these pages for quick access!](#)

### 1. [IACUC RAP Help Center](#)

Click the Help Center link in the top navigation of IACUC RAP.



» Dashboard AOPS IRB IACUC

Submissions Standard Library Concerns Facilities Reports Help Center

## Help Center

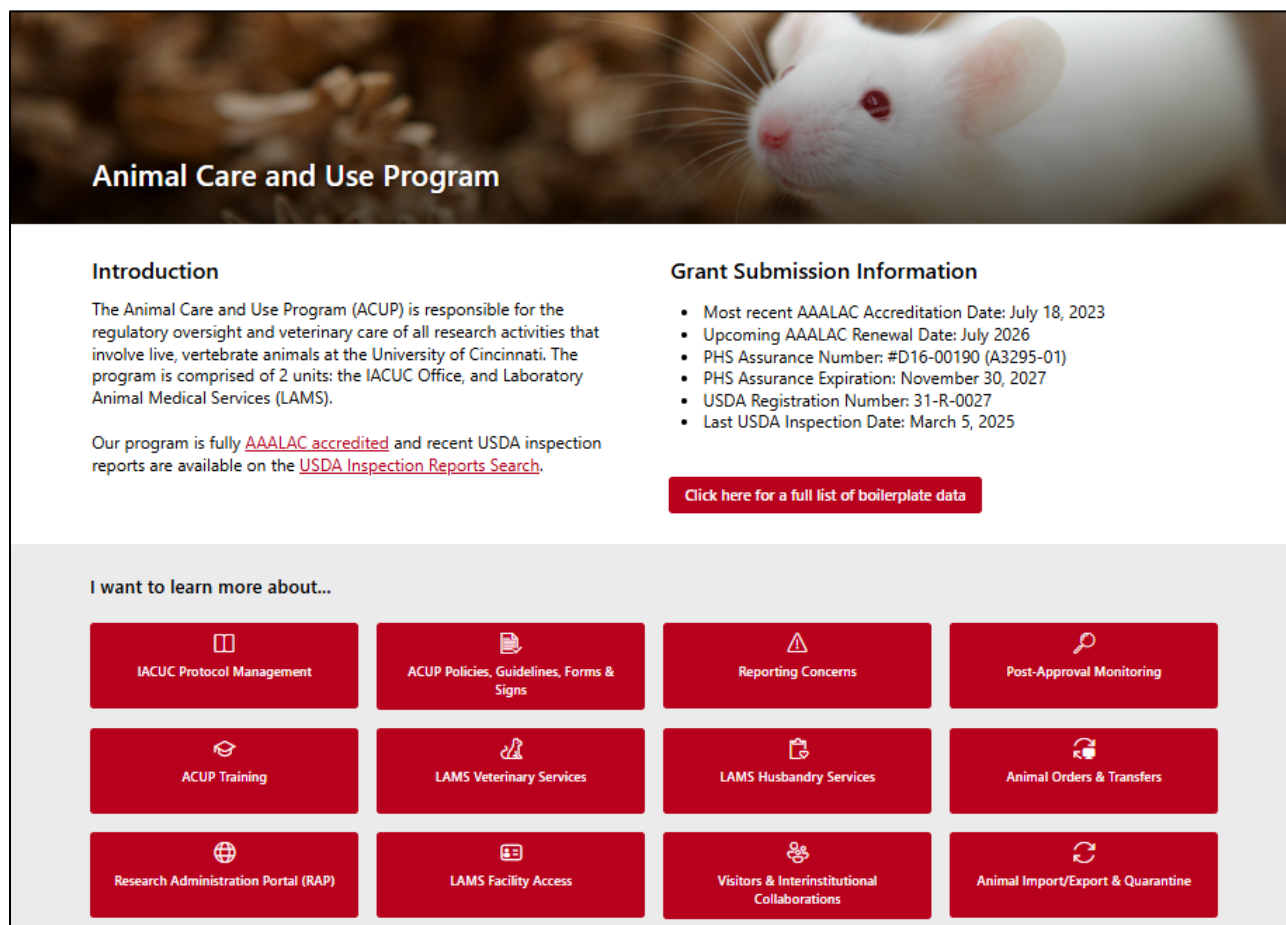
See the links below for printable guides and videos.

Policies & Guidelines Forms & Signs RAP Tutorials

### ACUP Policies

| Name                                                                           |
|--------------------------------------------------------------------------------|
| <a href="#">IBC Policy: Animal Containment &amp; Human Xenograft</a>           |
| <a href="#">IBC Policy: Animal Containment &amp; Viral Vectors</a>             |
| <a href="#">Policy 100 - Protocol Submission and IACUC Review</a>              |
| <a href="#">Policy 101 - ACUP Training</a>                                     |
| <a href="#">Policy 102 - Environmental Enrichment and Social Housing</a>       |
| <a href="#">Policy 103 - Food or Fluid Regulation Requirements for Rodents</a> |

### 2. [Bearcats Landing](#) (requires VPN)



## Animal Care and Use Program

### Introduction

The Animal Care and Use Program (ACUP) is responsible for the regulatory oversight and veterinary care of all research activities that involve live, vertebrate animals at the University of Cincinnati. The program is comprised of 2 units: the IACUC Office, and Laboratory Animal Medical Services (LAMS).

Our program is fully [AAALAC accredited](#) and recent USDA inspection reports are available on the [USDA Inspection Reports Search](#).

### Grant Submission Information

- Most recent AAALAC Accreditation Date: July 18, 2023
- Upcoming AAALAC Renewal Date: July 2026
- PHS Assurance Number: #D16-00190 (A3295-01)
- PHS Assurance Expiration: November 30, 2027
- USDA Registration Number: 31-R-0027
- Last USDA Inspection Date: March 5, 2025

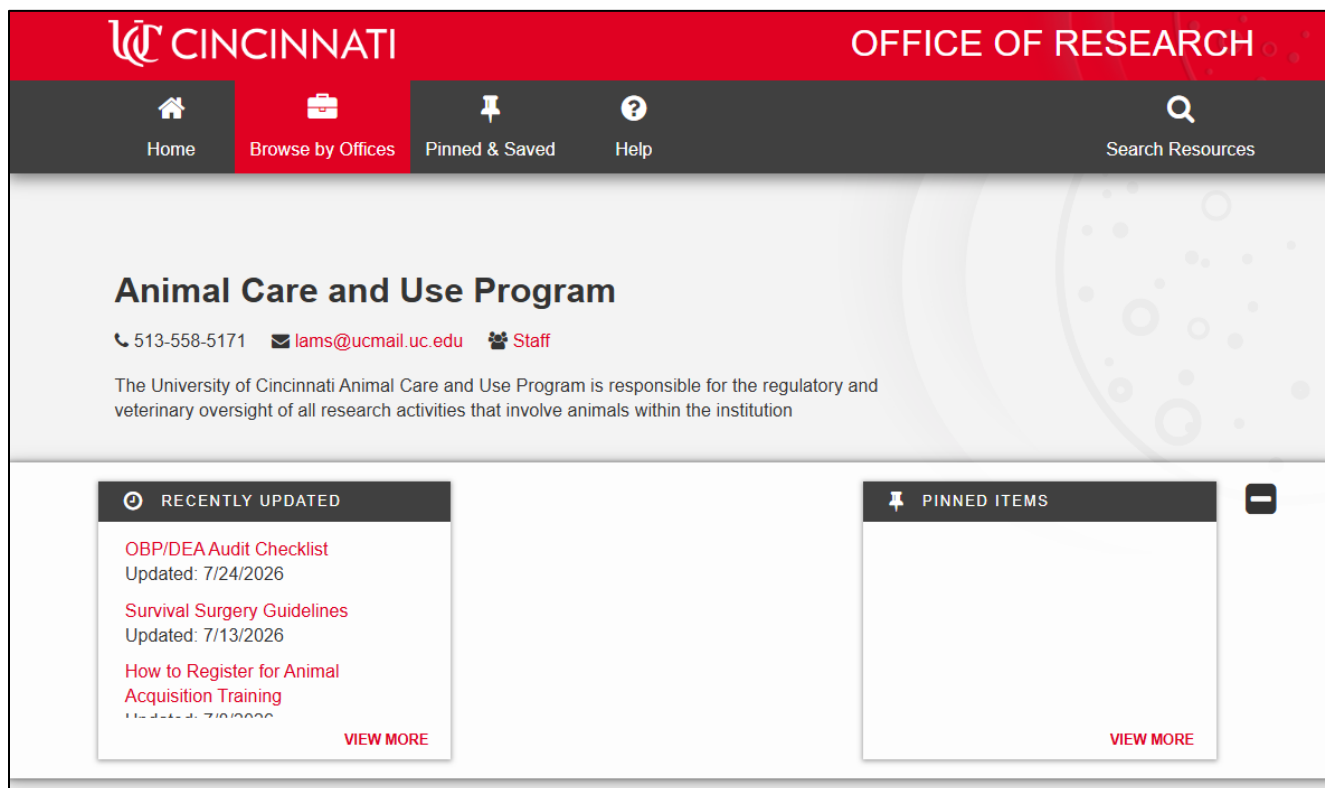
[Click here for a full list of boilerplate data](#)

I want to learn more about...

|                                                                                                                             |                                                                                                                                 |                                                                                                                                     |                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <br>IACUC Protocol Management            | <br>ACUP Policies, Guidelines, Forms & Signs | <br>Reporting Concerns                           | <br>Post-Approval Monitoring          |
| <br>ACUP Training                        | <br>LAMS Veterinary Services                 | <br>LAMS Husbandry Services                      | <br>Animal Orders & Transfers         |
| <br>Research Administration Portal (RAP) | <br>LAMS Facility Access                     | <br>Visitors & Interinstitutional Collaborations | <br>Animal Import/Export & Quarantine |

### 3. [Research How 2](#)

In the top navigation, you can browse by office (Animal Care and Use Program) or search resources using keywords.



### 4. Contacts

#### Animal Regulatory Compliance (IACUC Office)

|                                                       |                                                                                                               |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| • General inquiries                                   | <a href="mailto:IACUC@uc.edu">IACUC@uc.edu</a>                                                                |
| • IACUC RAP navigation<br>• Protocol writing & review | Nathalie Conway-James - 513-558-5106, <a href="mailto:conwayne@ucmail.uc.edu">conwayne@ucmail.uc.edu</a>      |
| • Onboarding training                                 | Abbie Thompson - 513-936-7173, <a href="mailto:animaltraining@ucmail.uc.edu">animaltraining@ucmail.uc.edu</a> |
| • Post-approval monitoring<br>• Offspring reporting   | Shandra Wombles - 513-558-5713, <a href="mailto:bohlansk@ucmail.uc.edu">bohlansk@ucmail.uc.edu</a>            |
| • Compliance issues                                   | Jenn White - 513-558-5103, <a href="mailto:brombejr@ucmail.uc.edu">brombejr@ucmail.uc.edu</a>                 |

#### Laboratory Animal Medical Services (LAMS)

|                                                                     |                                                                    |
|---------------------------------------------------------------------|--------------------------------------------------------------------|
| • Urgent veterinary issues                                          | 513-558-5518 & 513-558-6213                                        |
| • General inquiries<br>• AOPS navigation<br>• Service requests      | <a href="mailto:LAMS@uc.edu">LAMS@uc.edu</a> , 513-558-5171        |
| • Caging, supplies<br>• Technical services<br>• Husbandry questions | <a href="mailto:LAMS-Husbandry@uc.edu">LAMS-Husbandry@uc.edu</a>   |
| • Procedure & surgery<br>• Animal health & care                     | <a href="mailto:LAMS-Veterinary@uc.edu">LAMS-Veterinary@uc.edu</a> |

## Health and Safety Offices

|                                          |                                                                                                                                                                                                                   |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • Biosafety                              | <a href="mailto:inbiocom@ucmail.uc.edu">inbiocom@ucmail.uc.edu</a> , 513-558-6182                                                                                                                                 |
| • Chemical Advisories                    | 513-556-8488                                                                                                                                                                                                      |
| • Radiation Safety                       | <a href="mailto:RadiationSafety@uc.edu">RadiationSafety@uc.edu</a> , 513-558-4110                                                                                                                                 |
| • Environmental Health and Safety (EH&S) | <a href="mailto:joslinsm@ucmail.uc.edu">joslinsm@ucmail.uc.edu</a> , <a href="mailto:lamberjp@ucmail.uc.edu">lamberjp@ucmail.uc.edu</a> , 513-556-4968<br><a href="#">Environmental Health and Safety website</a> |
| • UC Health                              | 513-585-6600                                                                                                                                                                                                      |

## Miscellaneous

|                                            |                                                                                                       |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------|
| • Controlled substances                    | <a href="mailto:integrity@uc.edu">integrity@uc.edu</a> , <a href="#">Controlled Substance website</a> |
| • Human Research Protection Program        | <a href="mailto:irb@ucmail.uc.edu">irb@ucmail.uc.edu</a> , 513-558-5259                               |
| • Sponsored Research Services (SRS-grants) | <a href="mailto:ospaward@uc.edu">ospaward@uc.edu</a> , 513-558-5969                                   |

## **Appendix 1: Protocol Writing Examples**

### Example 1: Simple Experiment

Toxicological assessment of XYZ in Rats. This study will evaluate an equal number of male and female Sprague Dawley rats in up to 4 experimental doses of XYZ up to 100 mg/day for up to 28 days. Animals will be weighed and have blood and urine collected prior to study onset, and weekly thereafter. At the end of the 28 days, animals will be euthanized and tissues collected for pathology and histology.

10 animals per group (N) X 2 sexes (male/female) X 4 doses X 5 timepoints = 400 total animals

### Example 2: Complex Experiment

These studies are designed to characterize the effect of chronic, early life exposure to XYZ therapies on brain function and behavior.

Using a combination of in vivo modeling, pharmacology, electrophysiology, immunohistochemistry, transcriptomics, and behavioral testing, we will test whether early intervention with low-dose XYZ activation in mouse model of early disease reduces neuroinflammation, resulting in improved outcomes. Electrophysiology, immunohistochemistry, and transcriptomics experiments will be performed at an early and late timepoint, while behavior experiments will be performed only at the late timepoint.

Experiments will involve a genetic strain of mice that develops early markers of neuropathology that are consistent with ABC disease. Experiments will use both the wild-type and the transgenic mouse, both males and females. Some mice may be fed a high fat diet (HF= 60% calories from fat) for up to 12 weeks. Beginning at 30 days of age, animals will be treated with the incretin (or saline) daily or every other day. For some animals, experiments will end at day 60 (euthanized, brains removed for experiments). For other animals, behavioral testing will begin at 3-4 months of age, and at the end of behavioral testing, animals will be euthanized, and brains will be removed for experiments. These experiments will include immunohistochemical analysis of proteins to analyze neuropathological changes related to ABC disease as well as transcriptional profiling of RNA in specific regions of the brain. Behavioral tests will include open field and a variation (object recognition), followed one week later by the start of five choice serial reaction time task. Open field and variation will occur once. The five choice serial reaction time task involves daily testing for up to 5 months (dependent on how quickly an animal learns the task) throughout the workweek (M-F) testing (see procedure description for details). An additional control group of animals will be pair fed to reduce body weight without the XYZ therapy and tested in the same way as listed above. NMR imaging may be used to assess body composition (fat vs muscle) in select experimental groups. NMR would be done at most twice, at the start of treatment (p30) and at the end of treatment (p60 or ~p120).

1. We anticipate the maximum number of experiments for this project in a 3-year period to be 2 (these experiments reflect various drugs to test interventions and mechanisms and routes of administration or diets, different behavioral tasks, different brain measures, etc.). Maximum duration of study is 9 months.
  2. Up to 4 doses will be tested for each compound, as dose response studies are required in this field.
  3. All behavior testing may be recorded with a video/ software system or small recording device.
- Euthanasia methods: (1) At P30 and P60 some animals will perfused under anesthesia, (2) to rapidly extract brains for transcriptional profiling experiments, at p30 and p60 some animals will undergo cervical dislocation without anesthesia and then physical decapitation without anesthesia, and (3) euthanasia-chemical (CO2 inhalation) will be used for any animal removed from the study for health reasons (e.g., weight loss >20%).

3 groups (wild type vs transgenic vs pair fed controls) x 2 sexes x 16 interventions (4 drugs x 4 doses) x 16 animals per group x 2 timepoints= 3072 animals

### Example 3: Breeding Experiment

This experiment aims to produce animals for future experiments.

It is estimated that half the total experimental number of mice used will be transgenic.

9952 total mice / 2 = 4976 transgenic mice to be bred.

The total number of experimental mice of 4975 transgenic mice will be produced through in-house breeding.

Breeding pairs consist of one male and one female aged over 8 weeks old. We estimate litter sizes of 5 (some of our lines do not breed well). For the crosses we use to produce mice for experiments, all currently have breeding schemes in which two parent strains are crossed and produce litters in which all the mice born can be used for experiments. With an average litter size of 5, producing 4976 mice requires an additional  $2 \times 4976/5/4 = 249$  mice as production breeders, assuming each breeding pair is used 4 times. Additional mouse use comes from the breeding used to maintain the parent strains that are crossed to produce the mice used for experiments. We estimate having 8 such lines at any given time, with a minimum of 2 breeding pairs used to ensure survival of the line. With breeding every 4 months this is 2 pairs/line x 8 lines x 2 parents x 9 intervals per 3-year period = 288 mice used over the course of the protocol to maintain the parent lines. Pairs used to maintain the parent lines generally produce more mice than are needed to set up the next set of breeding pairs, so in addition to producing the 288 mice needed for the next round of breeding, these mice will produce an additional  $288 \times 5/2 = 720$  mice that cannot be used and will be culled.

$249 + 288 + 720 = 1257$  culled, used as replacement breeders, or transferred to other protocols.

## ***Appendix 2: Preferred Language and Definitions for Procedures***

### Food and Fluid Restriction

Separate procedure is required for 16 or more hours of food restriction and 8 or more hours of water restriction. Otherwise, the restriction must be described in its associated procedure and/or experiment.

### Prolonged Physical Restraint

Separate procedure is required for physical restraint greater than 10 minutes. Otherwise, the restraint must be described in its associated procedure and/or experiment.

### Imaging

Separate procedure is only required if you will be performing the imaging or irradiation. Separate procedure is not required if the procedure is performed via temporary transfer.

**Question 4 (Purpose):** Include a description of the imaging or irradiation procedure and the reason the procedure is needed.

**Question 6 (Describe post-procedural care and monitoring):** Animals will be returned to their home cage following the procedure.

### Survival Surgery (Animals Recover/Wake Up from Anesthesia)

#### **Question 2 (Describe the surgical procedure):**

Specify preferred anesthesia/analgesia used for this surgery. E.g. animals will be anesthetized with Ket/xyl; animals will receive carprofen as standard analgesic.

Choose 1 of the following closure descriptions

- Incisions are closed in 2 layers - inner layer with absorbable suture, and skin with wound clips or non-absorbable suture.
- The skin incision is closed with wound clips (or non-absorbable suture).

#### **Question 3 (Describe how the animal, surgeon, & instruments will be prepared for aseptic surgery):**

- ACUP survival surgery guidelines will be followed.
- Animal Prep:
  - Hair removal followed by alternating scrubs of povidone iodine or chlorhexidine and 70% ethanol repeated 3 times.
  - After hair removal, the animal will be placed on a clean, absorbent surface, such as an absorbent pad, to minimize heat loss during surgery.
  - An ophthalmic ointment (e.g. Puralube®) is applied to both eyes to prevent corneal drying and trauma.
  - Animal is placed on a recirculating warm water blanket or self-regulating heating pad for the duration of anesthesia.
  - Animal is covered with a sterile drape to help minimize contamination of the surgical site.
- Surgeon Prep: clean lab coat, surgical scrubs or disposable gown; mask; sterile surgical gloves. Hair bonnet/cap is recommended.
- Instrument Prep: Instruments will be steam (e.g. autoclave) or chemical sterilized initially. Some items may come sterile from the manufacturer or may require chemical sterilization according to directions from the manufacturer.
- If batch surgeries are performed, instruments will be sterilized between animals via glass bead sterilization. A new surgical pack will be used following the 5th animal.

#### **Question 5 (Describe the anesthetic monitoring):**

Anesthesia monitoring details are in the Substance Administration Anesthesia form.

**Question 6 (Describe post-operative care and monitoring):** Include descriptions for immediate post-operative care and daily care thereafter.

- During and immediately following surgery, animals will receive supplemental heat (e.g. circulating warm water blanket or equivalent to prevent thermal injury) until they regain consciousness.
- Animals will be continuously monitored until they are ambulatory and able to access feed and water without causing injury to themselves.
- Wet chow or hydrogel may be provided post-operatively.
- Animals will be checked at least once daily for at least (1 day minimal, 2 days-minor, 3 days moderate, 5 days severe) following surgery to monitor (and document) the surgical site, behavior, and analgesic administration.
- The animal will receive analgesics as described in the Substance Administration-Analgesia form.
- Suture or wound clips will be removed in 10-14 days.
- LAMS Veterinary staff will be consulted if there are any clinical concerns or adverse events associated with this procedure.

#### Non-Survival Surgery (Animals Euthanized Prior to Anesthetic Recovery)

##### **Question 3 (Describe how the animal, surgeon, and instruments will be prepared for aseptic surgery):**

- Animal Prep: hair will be removed
- Surgeon Prep: clean lab coat and gloves.
- Instrument Prep: Instruments will be clean.

**Question 5 (Describe the anesthetic monitoring):** Anesthesia monitoring details are in the Substance Administration Anesthesia form.

**Question 6 (Describe post-operative care and monitoring):** N/A

#### Non-Surgical

Non-surgical procedures may have a behavioral component, but animal does not have a conscious choice to participate (e.g. forced exercise, Hargreaves, burn).

##### **Question 2 (Describe any apparatus you will use and provide details of sanitization between uses):**

Apparatus may be cleaned with 70% ethanol (or equivalent) after each animal. At the end of the study, the apparatus is sanitized with a disinfectant (e.g. zepamine, peroxigard, clidox).

**Question 5 (Describe the anesthetic monitoring):** Anesthesia monitoring details are in the Substance Administration Anesthesia form.

**Question 6 (Describe post-procedural care and monitoring):** Animals will be returned to their home cage following the procedure.

#### Behavioral

Behavioral procedures are those in which animals have a conscious choice to participate (e.g. CPP, open field, running wheel without forced exercise).

##### **Question 2 (Describe any apparatus you will use and provide details of sanitization between uses):**

Apparatus may be cleaned with 70% ethanol (or equivalent) after each animal. At the end of the study, the apparatus is sanitized with a disinfectant (e.g. zepamine, peroxigard, clidox).

**Question 3 (Indicate how animals will be monitored for stress during procedure, including criteria for prematurely ending the session):** This procedure may be used as part of a stress paradigm. However, the procedure does not result in distress to the animal.

**Question 6 (Describe post-procedural care and monitoring):** Animals will be returned to their home cage following the procedure.

## Substance Administration

### **Question 2 (Describe the procedure for substance administration, including route if "Other"):**

- SQ/SC or IP: Animal is gently restrained, and injection is given.
- IV (tail vein): Animal will be manually or mechanically restrained, and the injection is given. Following injection, pressure is applied to the injection site with sterile gauze until bleeding stops.
- IV (retroorbital under anesthesia): Animal is anesthetized, and the injection is given. Following injection, pressure is applied to the injection site with sterile gauze until bleeding stops.
- Oral gavage: Animal is gently restrained, the oral gavage needle/tube is inserted, the substance is administered, and needle/tube removed.
- Food/Fluid: Animals are monitored at least weekly. Water bottles are replaced/sanitized at least weekly.
- Substance administered during a procedure: Substance administration description is provided in the associated surgical procedure.

### **Question 4a: If you answered "No-other" above, please provide justification for not using pharmaceutical grade. Otherwise state "N/A"**

### **Question 4b For each non-pharmaceutical grade substance, describe the procedures to be used to ensure the sterility, purity, stability and physiologic pH of the compound:**

Cells are received from: NOTE WHERE THE CELLS ARE RECEIVED FROM (E.G. ATCC)

All cell lines, stem cells, and biological products (serum) originating outside of UC animal facilities, including tissues from the ATTC (American Type Tissue Collection) must be confirmed the absence of contamination with rodent pathogens and mycoplasma by MAP or PCR testing. Biological products from a commercial manufacturer who certifies with testing or screening that the materials are not contaminated with excluded rodent viral pathogens are exempted from testing. Cells are maintained under sterile conditions in culture. Cell lines are prepared specifically to meet the needs of each experiment in the laboratory.

### **Question 6 (Describe the monitoring of the animal during the procedure):**

Animal will be continuously monitored during the administration.

For food/water administration-animals are monitored weekly.

For surgical administration, animals will be monitored as per surgical smartform.

For administration under anesthesia, animals will be monitored as per anesthesia smartform.

### **Question 7 (Describe post-procedural care and monitoring):**

Animals will be returned to their home cage following the procedure.

For food/water administration-animals are monitored weekly. (Note-see husbandry exception in associated experiment for details)

For surgical administration, animals will be monitored as per surgical smartform.

For administration under anesthesia, animals will be monitored as per anesthesia smartform.

## Euthanasia

### **Question 3 (Describe how death will be confirmed): A secondary physical method (listed below) will be performed:**

- Bilateral thoracotomy
- Decapitation
- Removal of vital organ
- Cervical dislocation (mouse only)

## Tissue/Blood Collection

Only required for survival procedures. Tissue/blood collection post-euthanasia does not require a separate procedure.

### **Question 2 (Describe timing and frequency of collection and amount to be collected):**

- ACUP Blood and Fluid Guidelines will be followed.
- Provide maximum blood volume for each collection and maximum volume in a particular timeframe.
  - Example: Blood samples will be taken up to 6 times, with 15-minute intervals, 50 uL (not to exceed 7.7 mL/kg every 2 weeks)

**Question 4 (Describe the anesthetic monitoring):** Anesthesia monitoring details are in the Substance Administration Anesthesia form.

**Question 5 (Describe post-procedural care and monitoring):** Animals will be monitored to ensure that bleeding has stopped and will be returned to their home cage.

### **Question 7 (Describe any potential complications from collection):**

- Tail Vein: If tail becomes damaged/unsheathed, notify LAMS veterinary staff.
- If too much blood is taken/lost, subcutaneous or intraperitoneal injection of sterile 0.9% sodium chloride or lactated ringers (0.5-1 mL mouse/1-3 mL rat) depending on size of animal and amount of blood loss.

## Appendix 3: View Missing Content for Experiment Questions 9 & 10

If Question 9 and 10 appear blank on the View Experiment form, you will need to use the workaround described below to view this content.

### 8. Identify husbandry exceptions:

| Exception Type                    | Description and Justification         |
|-----------------------------------|---------------------------------------|
| <a href="#">View</a> Special Diet | Provide description and justification |

### 9. Describe the maximum number of procedures an animal will experience:

### 10. Describe expected adverse clinical signs/symptoms, frequency of monitoring, and criteria for removal from the experiment and/or euthanasia:

1. Navigate to the IACUC protocol page and click on the last approved amendment in the History tab.

- Click the View Amendment button in the left navigation.

The screenshot shows the IACUC dashboard with a top navigation bar containing links for Submissions, Standard Library, Concerns, Facilities, Reports, and Help Center. The main content area displays details for Amendment AM02-25-03-24-02, titled 'Amendment for 25-03-24-02'. On the left, a 'Next Steps' section contains a 'View Amendment' button, which is highlighted with a red box. Other buttons include 'Printer Version' and 'Add Comment'. The right side of the dashboard lists key information: Principal investigator: Principal Investigator 1, Submission type: Amendment, Primary contact: IACUC coordinator, Consulted vet: PI proxies: There are no items to display, Letter: Correspondence\_for\_AM02-25-03-24-02.pdf(0.01), Protocol type: Experimental Research, Approval date: 7/22/2025 (AM02-25-03-24-02 - Amendment for 25-03-24-02), Admin office: IACUC, and Grace period: -.

- In the Amendment Summary section, click the “here” link to open the full protocol in a separate window.

The screenshot shows the 'Reading: AM02-25-03-24-02' page. The left navigation pane has 'Amendment Summary' selected. The main content area displays the 'Amendment Summary' title and a warning icon followed by the text 'Click here to review procedure changes.' A red arrow points to this link.

- In the left navigation, click Experiments to jump to the section, then click the experiment name to open details in a slide-in form. Scroll down to questions 9 and 10 to view the related content.

The screenshot shows the 'Experiments' section. The left navigation pane has 'Experiments' selected. The main content area displays a list of experiments, with 'experiment 1' highlighted by a red box. A red arrow points to this link. The right side of the dashboard shows details for 'experiment 1', including questions 6 through 10. Questions 9 and 10 are highlighted by a red box. Question 9 asks to 'Describe the maximum number of procedures an animal will experience' and question 10 asks to 'Describe expected adverse clinical signs/symptoms, frequency of monitoring, and criteria for removal from the experiment and/or euthanasia'.