What follows is an example of types of answers in a “Sample Protocol”. They are meant as examples and may not apply to all protocols.

```markdown
# ePROTOCOL IACUC SAMPLE PROTOCOL

## Principal Investigator

<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph, Elaine</td>
<td></td>
</tr>
</tbody>
</table>

## University Title

W3U Access ID

<table>
<thead>
<tr>
<th>Access ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>hm2402</td>
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</tbody>
</table>

## Protocol Title

The title should reflect content and subject of animal project - you can also make it similar to the grant.

## Training Details

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course</th>
<th>Course Completion Date</th>
<th>Course Expiration Date</th>
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</thead>
<tbody>
<tr>
<td>100</td>
<td>Anti-Drugs Questionnaire</td>
<td>2022-04-23</td>
<td>2025-02-10</td>
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<tr>
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<td>2023-02-11</td>
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<td>2022-02-07</td>
<td>2025-02-10</td>
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<tr>
<td>90750</td>
<td>Biosafety/Biohazard Pathogens</td>
<td>2022-02-11</td>
<td>2025-02-11</td>
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<tr>
<td>203</td>
<td>DLAR Mouse</td>
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<td>2023-02-11</td>
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<tr>
<td>202</td>
<td>DLAR Rat</td>
<td>1993-05-01</td>
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<td>27183</td>
<td>Essentials for IACUC Members</td>
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<td>2023-02-11</td>
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<td>2023-02-11</td>
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<td>91058</td>
<td>Working With Zebrafish (Danio rerio) in Research Settings</td>
<td>2022-02-08</td>
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<td>Working with Rats in Research Settings</td>
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<td>27182</td>
<td>Working with the IACUC</td>
<td>2022-02-11</td>
<td>2025-02-10</td>
</tr>
</tbody>
</table>

## Working with animal models?

*Describe Previous Experience and Responsibilities for this Protocol. Identify the responsibilities of this individual, his/her experience with the procedures and the animal species, and who will train personnel on the procedures for work specific to this protocol. Describe previous experience with animals and what you will be doing on this protocol. Be brief!*

Is this person an emergency contact? Emergency contacts need to be able

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For the Species to be Used, select each species, strain, sex, USDA Category, Source, and type in the number of animals to be used. Be sure to include any animals transferred from expiring protocols and animal animals bred in house. Categorize animals under the highest pain/distress category for all procedures they will undergo. For example, if a mouse will undergo 2 category C procedures, a category D procedure and a category E procedure, the mice should be listed as USDA category E. The total(s) in the table should match the total(s) in Question 2.
General Questions – see example below for renewal protocols

1. Is this protocol replacing an expiring protocol?
   The number of the expiring protocol is:
   a. Provide a brief summary of the work completed under the expiring protocol. It may be helpful to include the number of animals that were used and related to how many were approved in the expiring protocol. DLAR can provide you with a report, call 877-1107.
   This should be a brief summary of what you have accomplished (it does not need to include publications), such as experiments completed and experiments in progress. You should also include the number of animals previously approved for and the number of animals used. The number of animals used can be obtained from DLAR.
   b. Describe any unexpected adverse events that resulted in increased pain, distress or death rates to animals that were not described in the original protocol. Include how these were managed and what steps were taken to prevent recurrence (if applicable). Please make sure that any additional adverse effects, expected mortality, pain category changes, humane endpoints, etc. have been incorporated into this application.
   You must describe any adverse events that occurred during the last three years, how they were dealt with and what you have done to prevent them from reoccurring.
   c. Do you have animals currently in-house that will be transferred to this renewal protocol upon approval?
      If yes, please include them in species section

2. Is this VA research (i.e. conducted in VA facilities, funded by the VA)?

3. Will this protocol be submitted to the VA Central Office for approval (formerly submitted on an ACORP)?

4. Will this research involve students/visitors (not listed as Research Staff)?
   If yes, the guideline will need to be affirmed
   Describe the nature of the potential participation:

5. Is this a teaching protocol?
   How many classes are held per year?
   Approximately how many students participate in each class?

6. Is this a collaboration protocol with another institution via a WSU Memorandum of Understanding?
   Institution Name:
   Institution Protocol Number:
   The institution’s protocol and approval letter must be attached to this application
   Describe the experimental procedures that will be conducted at WSU in this protocol application

7. Is this wildlife field research?
Are You Using Section: If you are using any biological hazards (biological toxins, human cells/blood/tissues, viruses, bacteria, etc.) select use to Question 1. Add the agent below under the appropriate section.
Are You Using Section, cont: If you are using any chemical hazards (i.e., gas anesthesia, chemical drugs that may be hazardous to humans or animals), please list them below in Question 2. If you are not sure if they are hazardous, list them anyway. If you are using radiation hazards (i.e., PET or CT scanners, fluoroscopes, radiography, etc.), list them in Question 3.

2. CHEMICAL HAZARDS - Does this research involve the use of any IACUC reportable chemicals or gas anesthetic agents (e.g., isoflurane)? Please see the WSU Reportable Chemical Guide for assistance in identifying IACUC reportable chemicals.
   a. IACUC Reportable Chemicals?
   b. Gas anesthetic agents
   c. Gas scavenging system?

3. Radiation Hazard - Does this research involve the use of non-ionizing or ionizing radiation?
   a. Non-Ionizing radiation equipment-Examples include: Lasers, Infrared, Microwaves, MRI.
   b. Ionizing radiation equipment-Examples include: PET scanner, CT scanner, SPECT, Fluoroscopy, Radiography and other imaging equipment. Please note that the use of the In Vivo Xtreme machine must be included under this section regardless of use, because it is a radiation generating machine. Contact the MICR core regarding RSC protocol.
   c. Radiotopes
Are You Using Section, cont: If you are using Physical hazards (i.e., noise, heat, cold, etc), please add it below. If you are using Controlled Substances (i.e., Ketamine, Ethiqa XR, Buprenorphine, Morphine, etc.), you must have a WSU CS Protocol ID to link to your protocol. The only controlled substance DLAR will administer is Ethiqa XR or buprenorphine. For non-pharmaceutical grade compounds/drugs, see policy and information below.
For the Funding Page, add all funding sources for this protocol. This includes internal and external funding sources.
Purpose and Value: You can add more than one title, to coincide with grant. See instructions for lay description below.

**PURPOSE AND POTENTIAL VALUE OF STUDY**

**Official Project Title**

Title should reflect content and subject of animal project - you can also make it similar to the grant

In non-technical, everyday language that a senior high school student would understand, BRIEFLY state the research or development question to be addressed in this protocol. Also, explain the potential value of this study and the ways the proposed animal use might benefit human or animal health, the advancement of knowledge, education and training, or the good of society. If there are any anticipated negative impacts (pain, distress, etc.) on the animal as a result of the proposed research, please list and explain why the data resulting from the experiments justifies this negative impact.

A scientific abstract from a grant or funding proposal is not acceptable. Do not describe experiments or procedures, or use abbreviations. The information provided in this section could be used for possible press release.

This should be a lay description and should avoid complicated scientific terms or define terms using lay language. It should also clearly state the objectives or goals of the research. You should state why the research is important in terms of either animal health, human health, or improving scientific knowledge. You should state why you need animals to complete the study, as opposed to cell lines or computer models. Finally, you should list any possible adverse or painful/distressful effects animals may undergo (i.e., pain from surgery, distress from food/water restriction) and weigh this against the benefits of the proposed research.
For Question 1a of the Animal Use Justification Section, enter the keywords you searched in the appropriate databases to search for alternatives to painful procedures (USDA Category D or E only). If you don’t have USDA Category D/E you do not have to answer 1a.
Animal Use Justification Section: For the group size calculation questions, see suggestions below.

2. Indicate the METHOD(S) used to determine the group size of animals needed for this study.
   Note: The Guide states that whenever possible, the number of animals requested should be justified statistically. A power analysis is strongly encouraged to justify group sizes when appropriate. Please provide this information.
   a. Group sizes determined statistically. State what statistical analysis was performed and give the power function. The variance may be estimated from similar previously published studies. Software such as that available at www.poweranalysis.com or www.statistics.com may be helpful.

   Please include the group size(s) (i.e., n=10) and details of the power analysis.

   b. Group sizes based on quantity of harvested cells or amount of tissue required. Elaborate. (Note: A statement such as “The study requires 50 experiments” is not sufficient.)

   Please include the group size(s) (i.e., n=10) how you came up with the group size, based upon the number of cells/tissue required (i.e., 50 cells per mouse).

   c. Pilot study or preliminary project. Group variances unknown at present. **Minimal number of animals should be requested.** You must provide justification for the number of animals you are requesting. State the basis for your request.

   If this is a pilot study, please state the justification/how you came up with the sample size. It should be relatively small.

   d. Other. Elaborate and justify criteria used to determine group size.
For Animal Breeding, Housing and Care Section, indicate the type of breeding and when weaning will occur (21 days is standard). For delayed weaning (>21 d, no more than 28 d), please list the strains which require delayed weaning. You should also indicate how you will genotype and identify pups. FYI, ear punching will accomplish both and does not require anesthesia.

Animal Breeding, Housing and Care

1. Breeding: Will animals be bred in-house?
   - [ ] YES
   - [ ] NO
   All animals bred in-house must be listed in the "Special" section including any excess or unsuitable animals that will not be used for experiments. For complicated breeding schemes, please consider including an attachment (see "Attachments" tab above)
   a. Review the Rodent Breeding and Weaning Policy and complete the table below.

<table>
<thead>
<tr>
<th>Pair mating</th>
<th>Other (describe below)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>[ ]</td>
</tr>
<tr>
<td>No</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

   b. Will the offspring be genotyped?
   - [ ] Yes
   - [ ] No

2. Rodent Identification Method (e.g. ear punch, tattoo, ear notches) See Rodent Identification for guidance.
   - [ ] Not Applicable
   - [ ] None
   - [ ] List: ear punch

3. Describe any abnormal phenotypes for strains that will be used.
   List any phenotypes that would affect behavior or physiology (i.e., health or appearance)

4. Will Transgenic, Knockout and Knockin animals be used?
   - [ ] YES (review the Genetically-Modified Animals Guideline)
   - [ ] NO
   a. Describe any special care or monitoring that the animals will require, or need for special breeding systems.
      - [ ] No special care required
      - [ ] Special care required (describe below):

   b. Will these phenotypes cause an increased risk for the animal to shed intentionally introduced infectious agents, biological toxins, hazardous chemical agents, radioisotopes or create other hazards for the animal handlers and research staff?
      - [ ] YES Explain the hazard the animal will present to staff handling the animals and provide safety precautions required to be observed in housing and handling these animals in the space below
      - [ ] NO
Animal Breeding, Housing, and Care Section: If you are housing outside of DLAR, indicate where and who is providing the care. Answer subsequent questions 4a-d. For question 7, please justify any special caging.

5. Housing Outside DLAR Facilities: Will animals need to be maintained outside the DLAR facilities for more than 12 hours?
   - YES (Review [Overnight and Long-Term Housing of Animals in Investigator Laboratories](#))
   - NO
     - >12 hours but <=24 hours
     - >24 hours

   If animals are housed more than 24 hours in a laboratory, the room is designated as a satellite animal housing facility and must comply with all pertinent regulations as if it was a DLAR facility. If this room has not been set up as such, contact the IACUC office immediately.

Building:

Room:

   - DLAR will provide all husbandry and oversight.
   - DLAR and PI will share the responsibilities for husbandry and oversight.
   - PI will be responsible for all husbandry and oversight. Provisions for care and housing, animal monitoring and environmental monitoring will meet or exceed standard DLAR SOPs.

*All outside housing requests require a [Husbandry Agreement](#) between the Veterinarian and PI. A scanned signed agreement must be attached to this protocol. See attachments tab in the Protocol information.

In the Training Checklist section, please select the person responsible for taking care of animals outside of DLAR facilities.

a. Which animals will be housed outside of the DLAR facilities? Please include species and specific information about which animals will be housed (e.g., post-op animals, animals undergoing behavioral testing).

b. How many animals will be housed outside the DLAR facilities at one time?

c. How long will the animals be maintained outside of the DLAR facilities?

d. Justify why it is necessary to house animals outside of the DLAR facilities?

6. Housing Locations: Please list the buildings where animals will be housed.

   list buildings where animals will be housed

7. Caging Requirements
   - Standard housing (appropriate for species, including sterile for immuno-compromised animals)
   - Special housing needs required (e.g., suspended wire mesh flooring, non-standard size) for some or all animals on this protocol. Provide justification and describe circumstances below:

     If smaller than normal caging would be used (i.e., metabolic cages) or housing on wire bottom cages, justification is required and should be scientific and include duration and circumstances when animals will be in the special housing.
8. Food/Water Replacement: Please list any special food and/or water requirements (i.e., fasting, special diet, special water, etc.).

If special food/water is to be used (including periods of fasting), please list here.

9. Social Housing: The Guide states: “Single housing of social species should be the exception and justified based on experimental requirements or veterinary-related concerns about animal well-being.”

- Standard social housing
- Single housing will be required for some or all animals on this protocol. Provide justification and describe circumstances below; include the duration of time animals will be singly housed.

Justification for single housing should be scientific (i.e., published references) and/or experimental (i.e., unpublished data). Describe when animals are singly housed and for how long. This includes single housing of post-operative animals.

10. Environmental Enrichment: The Guide states: “The primary aim of environmental enrichment is to enhance animal well-being by providing animals with sensory and motor stimulation, through structures and resources that facilitate the expression of species-typical behaviors and promote psychological well-being through physical exercise, manipulative activities, and cognitive challenges according to species-specific characteristics.”

- Species-specific enrichment will be provided (see Environmental Enrichment and Behavioral and Social Management of Research Animals Policy/Guideline).
- Enrichment will not be provided for some or all animals on this protocol. Provide justification and describe circumstances below.

Justification should be scientific (i.e., published references) and/or experimental (i.e., unpublished data). You should describe when enrichment won’t be given and what types of enrichment. Also, add if any alternate types can be given. Also include deviation from single-housing enrichment requirement in this section. E.g., post-operative animals are singly-housed but cannot receive hut dit potential to damage cranial post.

11. State the period of time animals will be allowed to accclimate following arrival at VVSU and prior to the initiation of experimental or breeding procedures (Review the Acclimation of Animals Guideline).

Ideally, animals should be acclimated for several days before procedures begin. Only reduced acclimation periods require justification.

12. Will photographs and/or videos of animals be taken in an animal holding facility (i.e., DLAR)? Review the Security Policy/Guideline.

- YES, list building(s) and room number(s) and describe: images to be taken and for what purpose these images will be used for (i.e., used in publication, websites, seminars, teaching) and how they’ll be stored.
- NO
Animal Breeding, Housing, and Care Section: If animals are to be transported, answer subsequent questions as below.

If you are transporting in a hospital, answer questions 4 as “yes” and include a letter approving the transport and use of equipment in that hospital.

13. Will animals be transported between buildings for procedures?
   - **YES** Review the Transportation of Animals Policy/SOP
   - **NO**

To ensure humane animal handling and protect against disease spread, IACUC/DLAR requires that special provisions be met regarding the transportation of animals between WSU buildings or off campus locations. Transportation arrangements can be made through DLAR by calling 313-577-1343.

1. State the species and number of animals to be transported at one time:
   - this should be the species and number to be transported

2. Identify the building and room numbers involved in the transport:
   - **Note:** If animals will be taken into a medical center area hospital for a procedure, you must have prior approval from the authorizing persons at that hospital.

<table>
<thead>
<tr>
<th>Building and room numbers involved in the transport</th>
<th>Add</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>FROM (WSU Building and Room)</td>
<td>TO (WSU Building and Room)</td>
<td>Round Trip</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>Elliman</td>
<td>Y</td>
</tr>
</tbody>
</table>

3. State the purpose of the transportation, indicate if it may be necessary to do this more than once with the same or different groups of animals, and the length of the stay at each site (e.g., 1 hour, 6 hours, overnight, permanent).
   - State purpose of transport (i.e., imaging in Elliman) and length of stay

4. Authorization to bring animals into WSU locations such as hospitals, clinics or access equipment in the WSU campus area used for human patients. Provide details of authorization to use the facilities by the person responsible for the area(s). Include the name and title of the individual(s), and the date authorization was obtained. Also describe how animal use locations/equipment will be cleaned following use. An authorization letter can be attached in the “Attachments” tab above.
   - **NA**

5. If animals are being transported to WSU buildings, will they come into contact with, or be housed in the same room as other animals already residing at the destination?
   - **Yes** (provide details below):
   - **No**

6. Will the animals need to be sedated or anesthetized prior to or during transportation? Note that large animals (e.g., dogs) usually require sedation prior to transportation. Please consult a veterinarian if this was not previously approved by the IACUC.
   - **Yes** (provide details below):
   - **No**
Animal Breeding, Housing, and Care Section: If you are performing the transportation at any time, mark “no” to question 8. FYI, DLAR will not provide transportation of hazardous animals. See below for tips on answering 8b.

7. Will the animals be coming from a chemical or biological hazard exposure room or be shedding chemical or biological hazards?
   If yes, please see Transportation Policy for specific SOP.

8. Will the animals be transported by DLAR?
   You are encouraged to make arrangements with DLAR to transport your animals free of charge by calling 313-577-1452 if you are considering using a personal vehicle in all circumstances.
   
   □ Yes
   □ No, provide details below. You will be required to select the person(s) responsible for transporting the animals in the Training Checklist.

   a. If you and/or your staff will be transporting the animals at any time, please assure the Committee that:
      • Animals will be transported in an appropriate climate controlled vehicle. (i.e. air conditioned/heated). The use of personal vehicles is discouraged, as it can result in allergen exposure to the occupant and future occupants of the car, as the car can serve as a potential reservoir of animal pathogen. During regular business hours, arrangements can be made with DLAR to transport animals free of charge.
      • Animals will be transported expeditiously in a draped cage or cart by an approved route (out of public view avoiding personnel areas such that no one is aware that an animal is being taken into the hospital area).
      • Animals will be hand carried between WSU buildings (the use of carts is discouraged due to uneven pavement conditions on walkways).
      • Rodents will be transported in clean filtered microisolator cages and water bottles inverted to prevent leakage.
      • Rodent cages will be sanitized at the destination. Rodent cage exteriors must be sprayed with bleach solution (1 part bleach to 20 parts water) when they reach their destination. Cages cannot be opened until the bleach solution has been on the cage for 10 minutes.
      • DLAR facility leaders will be notified at least 24 hrs in advance of the return of the animals.

   □ I will comply with the transportation requirements outlined above and have reviewed the Transportation of Animals Policy/SOP

   b. Briefly describe transportation route below and specify if this will be a vehicle or pedestrian transport.

   Transportation will be from Bio Sciences to Elliman and will occur using PIs own vehicle (Ford Edge 2022). This vehicle is regularly inspected by IACUC and follows the Transportation Policy/SOP. The use of PIs vehicle is due to unusual transportation times.
Protocol Information, Procedures Section: Add Procedures using the Add button. Make sure the Use Categories for these Procedures match the Species section.

<table>
<thead>
<tr>
<th>Procedures (Non-Surgical)</th>
<th>Add</th>
<th>Delete</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure Type</td>
<td>Procedure Title</td>
<td>Species</td>
<td>Pain/Distress Category</td>
</tr>
<tr>
<td>Behavioral Testing</td>
<td>Fear Conditioning</td>
<td>Mouse</td>
<td>E</td>
</tr>
</tbody>
</table>

Use the "Add" button to select all the non-surgical procedures you plan to conduct. Once you have completed the basic information to build the table, proceed to the next tab, "Non-Surgical Procedures", to describe the details.

<table>
<thead>
<tr>
<th>Procedures (Surgical)</th>
<th>Add</th>
<th>Delete</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure Type</td>
<td>Procedure Title</td>
<td>Species</td>
<td>Pain/Distress Category</td>
</tr>
<tr>
<td>Surgery (Mouse or Rat)</td>
<td>Osmotic mini-pump implantation</td>
<td>Mouse</td>
<td>D</td>
</tr>
</tbody>
</table>

Use the "Add" button to describe all the surgeries you plan to conduct. Each surgery must be described separately; if you will be conducting multiple surgeries you will be asked to describe how they relate to each other in the "Surgery Relationships" section.
This is an example of the “pop-up” screen where you can add a procedure. You should add all anesthetics, analgesics, and any other agents/drugs to be administered/given to animals during the procedure. Remember to hit “Save” when you are done.
This is an example of a pop-up screen where you can add a surgical procedure (a surgery is anything that requires an incision) – the example below is an osmotic mini pump implantation.
On the same pop-up, enter the surgical details, tips for how to answer are below.

**Procedure Description**

**Surgical Procedure in Rodents**

1. **Surgical Details**
   Give a detailed overview of the surgical procedure to be performed, the size and anatomical location of incision, the anticipated time to perform the surgery, and the time frames of the performance in relation to the overall protocol. Clearly indicate the time of planned euthanasia following the surgery.

   **NOTE:** If more than one surgery will be conducted on this protocol, you will be asked to describe how they relate to each other in a separate section.

   This should be a detailed surgical description. Please include all surgical procedures, including thermal support given, supplement fluids given, etc. Specify dosages of anesthesia and analgesia given prior and during surgery. You should include animal prep (i.e., surgical site prep, instrument sterilization, etc.).

   **Example**
   Surgery is performed with aseptic technique. Hair around surgical site is removed using surgical clippers. Gross debris is removed using alcohol and the surgical site is scrubbed three times alternating with chlorhexidine (or providone-iodine) followed by sterile water (or alcohol). Ophthalmic ointment is applied to eyes. Sterile instruments will be used, along with sterile surgical drapes. Proper PPE will be used including sterile surgical gloves, surgical caps, surgical masks, and sterile gowns.

   Animals will be given *Ethica XR* (3.25 mg/kg, SQ) and then anesthetized with isoflurane (5% initially, reduced to 2% for the duration of the procedure) with a nose cone and placed in dorsal recumbency. Depth of anesthesia will be checked by toe pinch. The skin and instruments are prepared as described above. Anesthetic depth is assured and monitored through toe pinch. After adequate anesthesia and buprenorphine administration, a ventral incision will be made in order to separate skin, muscle, and fascia and gain access to the peritoneal cavity. Through the opening, a sterile osmotic minipump will be placed in the peritoneal cavity. The body wall incision will be closed by suturing (absorbable PDS sutures), then the skin incision closed using wound clips or sutures. After 7-14 days, surgical wound clips or suture will be removed using sterile wound clip forceps or scissors.

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**Pre/intra operative details**

2. **List pre/intra-operative analgesia, anesthesia, sedation, and muscle relaxation as well as any pre-treatment:**

   **Anesthetic Agents**

<table>
<thead>
<tr>
<th>Agent Name</th>
<th>Dosage (in mg/kg if possible)</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isoflurane</td>
<td>2-5%</td>
<td>Inhalation (INH)</td>
</tr>
</tbody>
</table>
Finally, indicate the anesthetics, analgesics, or other agents and how you will monitor the animals post-operatively.

**Anesthetic Agents**

<table>
<thead>
<tr>
<th>Agent Name</th>
<th>Dosage (in mg/kg if possible)</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isoflurane</td>
<td>2-5%</td>
<td>Inhalation (INH)</td>
</tr>
</tbody>
</table>

Indicate what parameters will be used to determine the need for additional doses of anesthesia.

Toe pinch, whisker twitch

**Analgesic Agents**

<table>
<thead>
<tr>
<th>Agent Name</th>
<th>Dosage (in mg/kg if possible)</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Etiqa XR</td>
<td>3.25 mg/kg</td>
<td>Subcutaneous (SQ)</td>
</tr>
</tbody>
</table>

**Other Agents**

Please click on ‘Add’ to add ‘Other Agents’

**Post operative details**

3. Will post-operative analgesia or other treatment be administered?

Yes  No

**Analgesic Agents**

Please click on ‘Add’ to add ‘Analgesic Agents’

**Other Agents**

Please click on ‘Add’ to add ‘Other Agents’

4. How will the animals be monitored for adverse effects? Describe any potential effects.

Example:

Animals will be monitored for signs of post-surgical pain and infection or other complications. Boost and food pellets will be placed on the floor of the cage for easy access. In addition, mice will be monitored a minimum of once a day for the first 7 days following the surgery, and 2x weekly for the duration of the study. To determine whether the animals have pain, distress, and infection, the PI or study personnel will specifically pay attention to the following parameters: For infection, drinking, eating, and walking patterns will be monitored. For pain, the presence of awkward gait, hunched back, ocular and/or nasal discharge, and aggressive behavior will be monitored. If any animal manifests signs of pain or infection, the veterinarian will be consulted and appropriate treatment provided.
## Non-Surgical Procedure Details

This should be a summary/narrative of all procedures that are proposed in the protocol. You should make sure to list/describe all procedures in Procedures list.

<table>
<thead>
<tr>
<th>Species</th>
<th>Procedure Title</th>
<th>Procedure Type</th>
<th>Pain Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouse</td>
<td>Fear Conditioning</td>
<td>Behavioral Testing</td>
<td>E</td>
</tr>
</tbody>
</table>

**Describe all non-surgical procedures:** Summarize in a narrative what procedures will be done. Include only those experiments where animals are directly involved. When animals are used as donors of organs, tissues, or cells, only describe how the organs, tissues or cells will be obtained. Do not describe what will be done with those organs, tissues or cells once they have been removed from the animal.

1. Describe every procedure.

The protocol you submit is a "stand alone" document. Do not refer to procedures in other protocols or publications or assume that they are so generally understood or used that everyone will know what you will do. This section should correlate with what you included in the Experimental Timeline and should include a brief experimental design statements for each experiment. The committee does not require descriptions of in vitro experiments.

This section is for the reviewers. It is important that they understand the experimental plan in detail, so that they know what happens to each animal throughout the experiment, from beginning to end, and also that they understand how the experimental design accomplishes the goals of the research. Please use consistent names/labels that correspond with the procedure titles. If a procedure or drug has multiple names, use one and stick with it. Don't vary it throughout the text.

For breeding protocols, make sure you explain the breeding system (monogamous, trio breeding, etc.) as well as when and how you will wean the animals, genotype the animals, and tag or identify the animals.

For experimental protocols an example follows:

In this study, we propose to conduct an experiment to determine whether social stress will produce an escalation on ethanol consumption. We hypothesize that greater effects will be seen in FVB/NJ mice as we have seen for the intermittent access procedure.

**Experiment 1:** Social Defeat induced escalation of ....

**Methods and Design:**

[ list all methods here including amounts of compounds given/injected/etc., amounts of blood/urine/etc taken and describe the overall experimental design, for example]

A. Fear Conditioning Behavior Testing ....

2. How will the animals be monitored for adverse effects? Describe any likely effects.

Describe how often animals will be monitored (every other day, once a week) and what they will be monitored for (poor body condition (body condition score <2); weight loss > 20%; labored breathing; signs of severe illness including scabby, hunched and inactive). More invasive procedures, or those that have the potential to induce more or more severe adverse effects may require more intensive monitoring. Monitoring should be specifically described for those circumstances.

If weight loss of 20% is selected as an endpoint, regular monitoring of weight should be performed and described here. If weight will not be monitored, body condition scoring (BCS < 2/5) should be used as an endpoint.
Surgery Relationships: If more than one surgery has been proposed, indicate if multiple survival surgeries will occur on the same animal at any time in the protocol. If yes, you must provide justification (question 1a) and explain the order of the surgeries and time between them (question 2).

1. Will this project include multiple survival surgeries on the same animal?  
   Yes  No

1a. Multiple survival surgeries will be conducted on an animal, review the Multiple Survival Surgeries Policy and provide justification below.

2. Describe the sequence and timing of the surgeries and how they relate to each other. If multiple surgeries will be conducted on some or all of the animals, use enough details to allow the reviewers to understand what each animal will undergo.

   [Blank space for justification and sequencing of surgeries]
Schedule of Procedures section (see explanation below)

<table>
<thead>
<tr>
<th>Species</th>
<th>Procedure Title</th>
<th>Procedure Type</th>
<th>Pain Category</th>
</tr>
</thead>
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<tr>
<td>Mouse</td>
<td>Fear Conditioning</td>
<td>Behavioral Testing</td>
<td>E</td>
</tr>
<tr>
<td>Mouse</td>
<td>Osmotic mini-pump Implantation</td>
<td>Surgery (Mouse or Rat)</td>
<td>D</td>
</tr>
</tbody>
</table>

Schedule of procedures for experimental groups: State or list in chronological order all procedures for each experimental group, their frequency, and time points over the course of the experiment. Details of each procedure are to be described in the appropriate sections, NOT here. A diagram or chart may be helpful to explain complex designs, which can be added in the "Attachments" tab above.

This section should be a clear timeline of ALL procedures from start of experiment to euthanasia and should match the Species question 2. See examples of flowcharts below or this example:

Day 1: Surgery
Day 8-20: Behavioral Testing 2 times weekly
Day 30: Euthanize
Example Timelines that could be uploaded as Attachments

**Timeline**

- **Day 0**: Animal change surgery
- **Day 5**: Blood, urine, fecal collected
- **Day 10**: Blood, urine, fecal collected
- **Day 15**: Animals are euthanized

**Feeding Groups**

- Liquid Diet (36% ETOH) with Pair Fed
- Liquid Diet (0% ETOH) with Pair Fed
- Chow Diet *(ad lib)*

**Transtracheal Infection**

- c.f.u. = 10 × LD$_{50}$
- Antibiotic or Sham Treatment (S.C.)
- Euthanize animals
- White Blood Cell Count, Blood Culture
Euthanasia section: State conditions that would warrant euthanasia (i.e., humane endpoints) as well as the methods of euthanasia for each species.

1. **STATE the SPECIFIC CRITERIA for the euthanasia of abnormal or moribund animals (assume someone may have to euthanize animals in YOUR ABSENCE).** Review the [Defining Humane Endpoints and End-stage Illness Guideline](#). Review the [Defining Humane Endpoints and End-stage Illness Guideline](#).
   - **Not Applicable (e.g., animals are used for tissue harvesting only and will not undergo any procedures prior to death)**
   - **Weight loss of 20% or more**
   - **Other conditions (examples may include, but are not limited to: a clinical condition that does not respond to treatment, such as an infected surgical site; any condition that a veterinarian deems severe enough to warrant euthanizing the animal). Please describe below:**
     - This should include examples such as severe infection of surgical site, signs of severe illness including scurfy, hunched and inactive, self-mutilation, etc.

   PHS Policy on Humane Care and Use of Laboratory Animals requires the IACUC to use the recommendations of the [AVMA Guidelines for the Euthanasia of Animals. 2003 Edition](#) please refer to it when necessary. If anesthetic overdose or CO2 narcosis is used, a secondary procedure such as bilateral pneumothorax, severing the aorta, or removal of a critical organ must be used to assure that the animal will not recover.

2. **Are your methods of euthanasia consistent with the WSU Methods of Euthanasia Policy, such that they do not require scientific justification?**
   - Yes [ ]
   - No [ ]

3. **Who will be responsible for performing euthanasia?**

   **Personnel Details**

<table>
<thead>
<tr>
<th>Name</th>
<th>Experience: Yes or No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Flame</td>
<td>Y</td>
</tr>
</tbody>
</table>

   - The DLAR Staff/Veterinarians will be the ONLY individuals performing euthanasia.

4. **Does this research include the euthanasia of mouse and/or rat fetuses and neonates?**
   - Yes [ ]
   - No [ ]
   
   Review and affirm the [Euthanasia of Mouse and Rat Fetuses and Neonates](#) in the Guidelines section. If it will not be followed then the variance must be justified in that section.

5. **Will all animals be euthanized at the end of this study?**
   - Yes [ ]
   - No [ ]
   
   If no, state their final disposition:
   If animals are to be adopted after study or donated, describe here.
For euthanasia that requires justification, see example below.

Finally, if training is complete, you will perform a Certification, COI Disclosure, and submit to your Department Chair for Approval.