

Researcher Laboratory and Vivarium Space Inspection Checklist

Please see the IACUC website **Policy Page** and **Resources Page** for further details regarding applicable policies and resources: <https://research.cuanschutz.edu/committee-support/home/iacuc-home>

Is the animal area clean and tidy?

- Will my elbows hit stuff while doing the surgery/dissection?
- Is there a chance something might fall into the surgery/dissection area?
- Is there blood or tissue bits in the area from the last surgery/dissection?
- Are all primary and secondary containers labeled and stored appropriately?

Rodents brought into the laboratory:

- Is bringing rodents to the laboratory approved on your IACUC Protocol? Is the room number where they are placed correct?
- Are you sure to always use the freight elevator and appropriate traffic pattern to bring rodents to the laboratory space?
- Am I using the appropriate transport containers to my lab?
- If I am transporting animals outside of the research towers to BDC or Pharmacy, am I using a secondary container to place the transport containers in?
- Is disposable caging (purchased from the vivarium) available if rodents will wait longer than 2 hours prior to the procedure? (please note that unless using the high risk return room, standard facility cages should not be in the lab area – please return them if you have them).
- Is food and water available to rodents in disposable caging if they will wait longer than 6 hours prior to the procedure?
- Are live animals in the laboratory for less than 12 hours? Unless there is approval from the IACUC, 12 hours is the limit that animals may be in the lab.
- Are they being placed in an acceptable location such as a benchtop, fume hood, biosafety cabinet or approved research equipment (not in cabinets or drawers)?

If doing survival surgery:

- Am I starting with fully sterilized equipment (instruments must begin autoclaved)?
 - Is autoclave efficacy monitored?
 - Is the sterilization date noted?
- Do I have a method to maintain sterility of the instruments throughout surgery (i.e. a sterile field to place instruments or instrument tips, suture, materials, etc on)?
- If using Tips Only Technique, do I have an appropriate method to sterilize instruments in between animals (i.e. a bead sterilizer – liquid sterilants are not appropriate)?
- Am I removing hair prior to the surgery? If using a chemical method, such as Nair is the method approved on my protocol?
- Am I disinfecting the skin at the surgical site, prior to making an incision, with more than just alcohol? An example of an appropriate disinfection method is scrubbing with an appropriate disinfectant (betadine or chlorhexidine) alternated with alcohol three times each (6 total).
- Are the animals receiving heat support during the procedure and until fully recovered?

- If it is a long procedure, are the animals receiving fluid supplementation (IV or SubQ)?
- Am I using appropriate draping to ensure a sterile surgical field?
- Am I wearing a surgical mask, hair bonnet, appropriate gloves for the procedure (sterile required unless tips only, then non-sterile may be used) and lab coat/isolation gown during the surgery?
- When surgery is being performed, is that space not used for anything else?
- Are the animals being monitored while recovering from anesthesia? Animals must be monitored until they are able to maintain sternal recumbency.
- Is analgesia being administered to the animal/s post-surgery per the IACUC protocol?
- Do I have anesthesia and analgesia records filled out for any anesthetic event lasting longer than 5 minutes? Are records available for review?
- Are all drugs and medical materials in-date (i.e. not expired)?

If using anesthesia for a survival procedure:

- Is the anesthetic drug expired? Expired drugs are not permitted to be used.
- Are drugs pharmaceutical grade if available? If not, are they justified in the protocol?
- Is the isoflurane being used in a ducted biosafety cabinet or is a vaporizer being used with appropriate scavenging?
- Has isoflurane vaporizer been calibrated within the last year?
- If using a charcoal scavenging system, is the charcoal canister weight regularly recorded on the canister and canisters are disposed of when they are spent according to manufacturer instructions?
- If using DEA drugs, are they being stored properly and are records readily available?

If using CO₂ for euthanasia:

- Do I have a flow meter attached to the regulator on the CO₂ tank?
- Do I have new signage indicating the appropriate flow rate for the size euthanasia container that is being used according to the 2020 AVMA Guidelines on Euthanasia?
 - New signs have the date 3/2020 in the bottom corner to indicate the new policy date
- Do I make sure that the euthanasia chamber is “aired out” in between animals to ensure that the chamber is not pre-charged?
- Is the euthanasia chamber cleaned in between animals?

If using isoflurane for euthanasia:

- Am I working within a fume hood, ducted biological safety cabinet, or another area with appropriate scavenging to ensure appropriate safety for personnel?
- Is the device being used set-up so that the animal cannot come in contact with the isoflurane liquid?
- Is the chamber being used cleaned in between animals?

Are there appropriate safety standards in place?

- Am I using any hazardous agents on the animals while they are in the laboratory and am I following the Standard Operating Procedure (SOP) developed for that material? This includes

having the appropriate precautions available (PPE) when using those hazards. Please make sure you know what the SOP states and have a copy on hand and visible.

- Is there a sharps box readily available? I.e. don't have to cross the lab with a sharps in order to reach one.
- Are all experimental agents properly labeled and stored, with the name of the agent (in English) and the expiration date (if applicable)? Any substance moved from its original container, diluted, or compounded in the lab should not be used beyond 30 days past the date it was made ("Beyond Use Date").
- Are gas cylinders appropriately secured? This includes empty ones.
- Is there any food or drink in the lab? (There shouldn't be)
- Aware of animal allergy potential to direct and indirect users?
 - Wearing appropriate PPE
 - If N95s are utilized, are users fit tested?

Personnel:

- All personnel working with animals are listed on the IACUC protocol(s) that they are working on and understand what is on the protocol? Employees should have access to protocols in some way (printed copies, lab shared drive, eSirius, etc) and understand what is approved on the protocol (the site visitors may ask you about your protocol and compare what you say to what is in the protocol).
- Is everyone working with animals enrolled in the Occupational Health Program and have submitted their most recent annual renewal form?
- All personnel, even those that do not use animals, know where to find the information regarding who to contact if there is an Animal Welfare Concern (signage at the exit of the laboratory area, in the vivariums, on the IACUC website).
- Is emergency contact information posted?

Staff Training:

- Has everyone working with animals been through the IACUC and OLAR required training (Skillport Modules, in person orientation, euthanasia training)?
- Is everyone working with animals qualified either through training at a previous institution or training at CU Denver by their laboratory, another research group, or OLAR to perform the procedure(s) that they will be performing?
- Has training been documented at a minimum on the Personnel Qualifications form which is submitted to the IACUC? Training may also be documented per individual laboratory records.
- Is other training documentation available? (i.e. required EHS training such as chemical safety and blood borne pathogens, should also have documentation available).

Miscellaneous:

- If using a guillotine or scissors for decapitation, when was it last sharpened? (generally it should be within the last year or more frequently if used often and the date should be documented)
- Are carcasses stored in the freezer until they are picked up or taken to animal facility freezer?

- Are carcasses properly labeled if radiation or biological hazards were utilized?
- Are SDS available to lab staff for all applicable chemicals used in the lab?
- Are biological safety cabinets and fume hoods certified within the last year?
- Is there appropriate signage in areas where it is applicable (i.e. radiation area, biohazards, etc)?
- Is waste being disposed of appropriately (chemicals, biological, liquid)?
- Are sanitation methods and frequency of sanitation of materials appropriate and, if applicable, documented when they were completed?
- Do all personnel working with animals know how to contact the veterinary group if an animal emergency arises?
- If approved to breed animals on your protocol, are they set up according to what is in your approved IACUC protocol? Please make sure that all of your cages comply with the IACUC Overcrowding Policy.
- If you have single housed animals, is this approved on your IACUC protocol or meet other criteria on the Social Housing of Animals Policy (i.e., breeder males)?
- Are you using the standard enrichment at minimum in your cages? If not, is this approved on your protocol and is the cage appropriately flagged?
- If performing tumor studies, do all tumors meet the criteria outlined in your protocol? For most groups this means the tumor is less than 2cm and is not ulcerated or impairing the animals' ability to ambulate, eat, or drink.

Information about AAALAC site visitors:

- The site visitors will be escorted by members of the Animal Program staff at all times.
- Asking questions is normal for AAALAC; a lot of writing by AAALAC is also normal. Do not be worried if this occurs.
- Please do continue your research during this time. We have no desire to delay your research and AAALAC likes to see properly done research in action (i.e. following IACUC approved protocols). If you are in the middle of something sensitive, it is ok to ask the site visitors to please come back later.
- Please answer their questions directly, briefly and honestly. If you do not know, do not make something up; just say I do not know and ideally where or from whom you would find the information. That is better in the long run.
- Do not let the site visitors break rules or policies! They may try to push a bit to see if you know the proper procedures. For example, they may try to access an area without proper personal protection equipment (PPE; gowns, etc.); they do want you to stop them. This evidence is that you know the proper procedures and the rules.