

## Requirements for Working with Animals at UC Davis

What the IACUC is looking for:	How to prevent a deficiency. You should ensure all staff members are meeting these expectations:
1. Protocol(s) available <a href="#">PPM 290-30</a>	Staff members must have access to active protocols either by providing a hard copy in the lab or by training staff to use the IACUC online system: <a href="https://iacuc.ucdavis.edu/protocol/index.cfm">https://iacuc.ucdavis.edu/protocol/index.cfm</a>
❖ Protocol status sheet (review)	If hard copies of protocols will be maintained in the lab for staff to access, the protocols must have current expiration dates and all approved amendments printed out and attached to the original protocol.
❖ Protocol staff roster (review)	Please ensure the staff roster is current. Non-active members should be deleted from the roster and new members must be added prior to working with animals.
2. Occupational Health (Physical) –PPE, hand washing, lab coats <a href="#">PPM 290-25</a>	All persons working with animals must wear PPE as required by campus policy. Minimum requirement for most species requires a lab coat and gloves. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-38.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-38.pdf</a> <a href="https://research.ucdavis.edu/wp-content/uploads/SC-10-102.pdf">https://research.ucdavis.edu/wp-content/uploads/SC-10-102.pdf</a>
3. Occupational Health (Preventative Med)- questionnaire	All persons working with live animals must be an active participant in the occupational health program. Risk assessment forms must be updated whenever a change has occurred to a person's risk. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-25.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-25.pdf</a> <a href="https://ehs.ucop.edu/ohss/protected/home.htm">https://ehs.ucop.edu/ohss/protected/home.htm</a>
4. Training records	All persons on the protocol, including the PI, must be adequately trained on the specific species related procedures they will be performing in the protocol and have documentation of the training. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-02.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-02.pdf</a>
5. Fish and Wildlife Service Permit	Current Fish and Wild life Services permit must be posted in labs working with detrimental species
6. Animal housing, food and water provisions (if more than 6 hours) <b>Guide 8<sup>th</sup> edition</b>	Animals that are conscious for more than 6 hours in the lab must have food and water available. Animals housed in the lab for more than 12 hours must be approved for overnight housing and have an established husbandry SOP using the campus format. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-19.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-19.pdf</a>
7. Sanitation of procedure area <b>Guide 8<sup>th</sup> edition</b>	Lab must be clean, organized and free of clutter. Specifically lab space used for animal work must be easily sanitized. <a href="https://research.ucdavis.edu/wp-content/uploads/SC-50-101.pdf">https://research.ucdavis.edu/wp-content/uploads/SC-50-101.pdf</a> <a href="https://research.ucdavis.edu/wp-content/uploads/SC-50-106.pdf">https://research.ucdavis.edu/wp-content/uploads/SC-50-106.pdf</a>
8. Carcass and waste disposal <b>Guide 8<sup>th</sup> edition</b>	Lab personnel must be trained to bag animals in waterproof bags and dispose of them in a dedicated freezer/cold room. <a href="https://research.ucdavis.edu/wp-content/uploads/SC-40-101.pdf">https://research.ucdavis.edu/wp-content/uploads/SC-40-101.pdf</a>
9. Security <b>Guide 8<sup>th</sup> edition</b>	Lab must keep doors shut while performing animal work. View windows on doors must be covered while animal work is performed. When submitting a protocol or amendment do not refer to staff by name other than in the staff roster. Refer to the person by title or department in the body of submissions to maintain staff's anonymity. <a href="https://research.ucdavis.edu/wp-content/uploads/SC-20-104.pdf">https://research.ucdavis.edu/wp-content/uploads/SC-20-104.pdf</a>
10. Animal Identification <b>Guide 8<sup>th</sup> edition</b>	Animals must be identified by at least the PI name and protocol number in housing locations and when being transported. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-32.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-32.pdf</a> <a href="https://research.ucdavis.edu/wp-content/uploads/SC-20-106.pdf">https://research.ucdavis.edu/wp-content/uploads/SC-20-106.pdf</a>
11. Vet care <b>Guide 8<sup>th</sup> edition</b>	Staff must be trained to contact the designated clinical veterinarian for sick animals. Phone numbers must be readily available. <a href="https://research.ucdavis.edu/wp-content/uploads/SC-40-100.pdf">https://research.ucdavis.edu/wp-content/uploads/SC-40-100.pdf</a>

12. Drugs/expiration dates/Pharmaceutical grade <b>Guide 8<sup>th</sup></b> edition	Drugs must be pharmaceutical grade unless chemical grade drugs and preparation procedures have been approved in the IACUC protocol. Drugs past their expiration date may not be used in animals. Expired drugs must be properly disposed of. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-09.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-09.pdf</a> <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-29.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-29.pdf</a>
13. Transportation of animals to the study area. <b>Guide 8<sup>th</sup></b> edition	Animals must be transported in a way that minimizes stress, the spread of allergens, and reduces the spread of pathogens. Animals transported in a car must be kept in an appropriate cage or carrier in the passenger, temperature controlled portion of the car. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-13.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-13.pdf</a> <a href="https://research.ucdavis.edu/wp-content/uploads/SC-20-108.pdf">https://research.ucdavis.edu/wp-content/uploads/SC-20-108.pdf</a>
14. Euthanasia methods Appropriate per <b>2020 AVMA Guidelines</b>	Euthanasia methods used in the lab must be approved in the protocol. Training for euthanasia methods must be documented. <a href="https://www.avma.org/KB/Policies/Documents/euthanasia.pdf">https://www.avma.org/KB/Policies/Documents/euthanasia.pdf</a>
15. Sharps disposal <b>UCD Safety Net #3</b>	Please ensure staff are not recapping needles. Used needles and syringes must be disposed of in the sharps container without being recapped. If a sharps container is not readily available for proper disposal, only the one handed technique may be used to recap the needle. <a href="https://safetyservices.ucdavis.edu/safetynet/sharps-safety-guidelines">https://safetyservices.ucdavis.edu/safetynet/sharps-safety-guidelines</a>
16. Are personnel trained on how to report a concern?	All members in the lab must be trained how to report an animal concern. This training must be documented and provided to everyone in the lab even if they are not on the protocol roster. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-15.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-15.pdf</a>
17. Rodent survival surgery areas clean and uncluttered	It is preferred that rodent survival surgeries be performed in the vivarium procedure rooms. If the lab has been approved for survival surgeries, there must be a designated space for the surgeries that is clean, uncluttered, and disinfected. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-22.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-22.pdf</a>
18. Records (pre, peri, and post- operative)	Post-op records must clearly document the procedure performed, drugs given, and the recovery of the animal. Animals must be checked at least daily for a minimum of 7 days post-op. Daily checks, analgesics, suture removal etc. must be clearly documented in the record. Post-op records must be maintained with the animal while the animal is on post-op care. Once post-op care is completed, records are maintained in the lab as required by the Record Retention policy. <a href="https://research.ucdavis.edu/wp-content/uploads/SC-40-404.pdf">https://research.ucdavis.edu/wp-content/uploads/SC-40-404.pdf</a>
19. Aseptic procedures	Ensure the policy for survival surgery is being followed. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-22.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-22.pdf</a> <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-52.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-52.pdf</a>
20. Autoclave monitoring procedures <b>UCD Safety Net #26</b>	Autoclave tape or pouches must be used to demonstrate items have been autoclaved. Autoclaves must be checked regularly to ensure proper functioning. <a href="https://safetyservices.ucdavis.edu/safetynet/effective-use-autoclaves">https://safetyservices.ucdavis.edu/safetynet/effective-use-autoclaves</a>
21. Storage of autoclaved materials <b>UCD Safety Net #26</b>	Autoclaved items must have the sterilization date clearly written on the autoclave tape or pouch. Autoclaved items must be stored in a cool, dry place. <a href="https://safetyservices.ucdavis.edu/safetynet/effective-use-autoclaves">https://safetyservices.ucdavis.edu/safetynet/effective-use-autoclaves</a>
22. Cold sterilization procedures	Ensure chemical being used is a sterilant and not a disinfectant. Lab must adhere to manufacturer's guidelines regarding contact time.
23. Anesthetic monitoring (including, maintenance of vaporizer)	Anesthetic vaporizers must be checked annually to ensure the amount of gas being delivered is accurate. CVS provides this service on a recharge basis (530-752-0514) or <a href="mailto:lahc@ucdavis.edu">lahc@ucdavis.edu</a> <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-30.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-30.pdf</a>

24. Gas cylinders immobilized <b>UCD Safety Net #60</b>	All cylinders must be properly immobilized. EH&S recommends all cylinders be double chained; one chain near the top of the cylinder and one chain near the bottom of the cylinder: <a href="https://safetyservices.ucdavis.edu/safetynet/compressed-gas-safety">https://safetyservices.ucdavis.edu/safetynet/compressed-gas-safety</a>
25. Scavenging of anesthetic gases	Waste anesthetic gases must be absorbed in charcoal canisters or ventilated thru a duct system. Manufacturer's guidelines must be followed and usage must be documented on the side of the canister either indicating the hours used or weight of the canister (pre and post use). <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-30.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-30.pdf</a>
26. Analgesics used according to protocol	Analgesics must be given at the same dose, route, and frequency as outlined in the protocol. Post-op records must clearly document each dose given to the animals. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-22.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-22.pdf</a> <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-52.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-52.pdf</a>
27. Amendment Process	Amendments must be submitted through the online system for protocol changes and approved prior to changes being initiated. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-07.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-07.pdf</a>
28. Animal Numbers	Animal numbers be justified and must not exceed what the protocol is approved for. If more animals will be needed for the study, an amendment must be submitted and approved prior to more animals being used. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-20.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-20.pdf</a>
29. Species	Only the species approved in the protocol may be used. If a new species needs to be added to the study an amendment must be submitted and approved prior to ordering.
30. Anesthetics	All anesthetics used must be approved in the protocol. Drug dosages and drug routes must be clearly defined as well. If the anesthetic regimen needs to be modified an amendment must be submitted and approved prior to making any changes unless clinically related and initiated by a veterinarian. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-41.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-41.pdf</a>
31. Report unexpected outcomes/deaths	If there have been any unexpected adverse effects or deaths that are study related, an animal care update amendment must be submitted to the IACUC updating the potential adverse effects section in the protocol. The amendment should state what occurred, why/how it occurred if known, and what mitigation measures, if possible, have been incorporated to prevent future occurrences. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-15.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-15.pdf</a>
32. Change in work location	All rooms being used for animal work must be approved on the protocol. If a new room needs to be added the lab must submit an amendment and receive approval prior to utilizing the room.
33. Humane endpoints	Humane endpoints must be followed, as described in the IACUC approved Humane Endpoints policy or as otherwise described and approved in the protocol. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-28.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-28.pdf</a>
34. Appropriate study records available	Appropriate study records will vary by project, but may include such things as breeding records, animal weight records, surgical logs, anesthetic logs, analgesic documentation, fluid totals, special diet notations, time spent "worked" (for example nonhuman primates working for fluid/food reward), records pertaining to enrichment, prolonged restraint, and other quantifiable data relative to project goals and animal well-being. <a href="https://research.ucdavis.edu/wp-content/uploads/SC-40-404.pdf">https://research.ucdavis.edu/wp-content/uploads/SC-40-404.pdf</a>
35. Event recorded	If there have been any unexpected events that may have had an impact on the study or animal well-being, these should be noted by the PI. Examples might include: power outages, adverse weather or structural or equipment failure due to weather or other event, a loose animal, etc. Typically an "event" differs from "unexpected outcome" in that the "event" is not project related, but may still have an effect on the project or animals.

36. Sources/transfers	Animals must be purchased from approved vendors or labs must receive permission Campus Veterinarian's Office or the IACUC Office for non-approved sources. All animal transfers must be approved in advance of transfer occurring. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-40.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-40.pdf</a>
37. CVS oversight	If CVS requested oversight of initial studies, was this complied with? For example, if a veterinary observation was required during the first surgery, did the PI contact CVS to arrange for this?
38. Number of surgeries per animal	Animals may not have surgery more frequently than described and approved in the protocol. Additionally, animals may not be transferred from one survival surgery protocol to another survival surgery protocol without IACUC knowledge and approval. <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-22.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-22.pdf</a> <a href="https://research.ucdavis.edu/wp-content/uploads/IACUC-52.pdf">https://research.ucdavis.edu/wp-content/uploads/IACUC-52.pdf</a>
39. Surgeon training documentation	Staff performing surgery must have documentation of their training /qualifications to be able to perform surgery.
40. Exception approved in protocol	If there will be any exceptions to the Guide, these must be stated in the protocol and approved by the IACUC. Examples of "exceptions" include wire bottom cages, food/fluid regulation, prolonged restraint, deviation from routine husbandry procedures, exemptions from portions of the primate well –being plan, use of neuromuscular blocking agents, etc. Section 9 of the protocol
41. Is limited to only when necessary	Exceptions to the Guide are only used when they are required to meet scientific objectives. For example, if a study requires dietary measurements three weeks only out of a six month study, then the use of wire bottom cages is limited to those three weeks.
42. Procedures	Ensure all procedures being performed are approved in the protocol.
43. Objectives	It is often best for objectives to be fairly broad to allow for study development. If you have a question regarding whether an amendment is appropriate, or if a proposed change may require a new protocol, start by referring to the approved objectives. If you were to rewrite your protocol today, would the objectives still be the same? Protocol amendments must relate directly to stated objectives.
44. Animal Tracking System	Animals acquired by means other than purchase, transfer, import or export (auction, donation, field caught, breeding, etc.) must be manually entered into the ATS either by the facility manger or PI at least on a quarterly basis. <a href="https://research.ucdavis.edu/research-support/animal-care-use/iacuc/animal-tracking-system/">https://research.ucdavis.edu/research-support/animal-care-use/iacuc/animal-tracking-system/</a>