Institutional Animal Care & Use Committee

POLICIES

Revised August 9, 2024

in concurrence with TTUHSC PHS Assurance D16-00032, and other Federal Regulations and Guidelines

Records Retention

All IACUC records shall be maintained for a minimum of three (3) years.

However, records that are related directly to applications, proposals, and proposed significant changes in ongoing activ reviewed and approved by the IACUC shall be maintained for the duration of the activity plus a minimum of an additional three (3) years after completion of the activity. See the

Policy 3: Procurement, Housing & Accountability

1. Procurement

The following procedure must be followed regardless of the funding source used for procurement.

A. Live vertebrate animals (ñlive animalsò) used for teaching or research, under the auspices of TTUHSC, may be ordered only if an approved IACUC protocol exists for that purpose.

B. All orders for live animals must be processed through the appropriate TTUHSC LARC.

C. All live animals ordered must be delivered to the appropriate TTUHSC LARC.

D. Upon arrival the animals must be checked by the LARC for the correctness of the order and for the animals' hea status. The LARC will notify the principal investigator (PI) of the animals' status, and the animals will be house in the LARC.

E. The live animals ordered by the LARC or transferred onto a protocol must not exceed the number approved unc the IACUC protocol.

2. Housing

A. All animals must be housed within the appropriate TTUHSC LARC except when specified in the approved IACUC protocol.

B. USDA-regulated animals (which include all warm-blooded vertebrates except rats of the genus *Rattus*, mice of the genus *Mus* and birds) must not be held outside the LARC for more than **12 hours** unless specified in the IACUC approved protocol.

C. No other vertebrate animals are to be held outside of the LARC for more than **24 hours** unless specified in the IACUC-approved protocol.

D. Any site where animals are held for times exceeding those specified under Sections 2.B. and 2.C. is, by la considered an animal housing facility and must comply with the regulations outlined within the most recent versions of "The Guide for the Care and Use of Laboratory Animals" (The Guide) of the National Research Council of th National Academies, Washington, D.C., the USDA,[1] and the National Institutes of Health (NIH) Office of Laboratory Animal Welfare (OLAW).[2] When animals are to be housed in a laboratory, the PI will be responsible for following the regulations governing housing facilities, maintaining the laboratory in a manner that complies with those regulations, and maintaining appropriate records as defined by the regulatio

E. The LARC staff will make every effort to house animals according to the PI's specifications. However, the LARC must comply with TTUHSC policies, rules from ñThe Guideò, and federal laws and regulations governing the sizes of cages and numbers of animals per cage, which shall supersede a PI's specifications.

F. All animal rooms must be maintained by LARC personnel unless otherwise authorized by the Institutional Veterinarian or designee. If a PI's study involves the use of special diets or has other requirements, PIôs technicians may implement those husbandry requirements with the approval of the Institutional Veterinarian or his/her designee.

3. Accountability

Animals must be recorded as ñused on protocolò when issued to the requesting PI.

A. Rodents: The language of the approved protocol will determine how rodent mothers, pups, litters, etc. are coun

1. If a PI plans to perform experiments on unweaned pups, one mother with pups will be counted as one litter. A weaned pups from those litters will be counted against the protocol census.
2. In a breeding colony, unweaned pups are not counted against the protocol census. Once pups are weaned, they must either become part of the breeding colony, be transferred to a research or training protocol, or be euthanized.

B. Non-

E. will provide ñon-callò animal health support on an ongoing basis including weekends, holidays and after regular business hours

2) Meet with the IVet or designee on an as needed basis to discuss issues related to the applicable TTUHSC animal resource center and for training.

Submission Form, and the IACUC will consider the judicious use of animals in research and will assess the scientifi importance of the study.

6. Post-Committee Review Process

After submitted protocols and amendments are presented and discussed at a convened IACUC meeting, the committee members present will vote to either a) approve, b) require modifications to secure approval, or c) withhold approval.[1]

A. When the IACUC requires modifications of a protocol in order to secure approval, the members have to follow one of the procedures described below:

1) A second Full Committee Review (FCR), following the procedures delineated above.

2) A Designated Member Review (DMR), if approved unanimously by all members at the meeting, following the procedures described in Policy #7. However, if any member calls for FCR of the modifications, such modifications can only be reviewed and approved by FCR.

3) Minor modifications may be confirmed by IACUC administrative staff, if approved by the designated members (if DMR) or unanimously by all members at the meeting when the protocol was presented (if FCR).

B. Procedures related to animal care and use, housing and management should be continuously evaluated, and w indicated, should be refined or replaced.[2] During the continual review of protocol procedures, investigators may be asked to make changes in their protocol due to regulatory changes and advances in veterinary standards of ca[8]

C. Research described in an NIH grant application must be congruent with any corresponding TTUHSC IACUC[10] approved protocol as determined by the Institution. A one-to-one relationship between the grant and the approved protocol is not required, and more than one protocol may be associated with one grant and vice versa.[9,11]

7. Amendments

A. Once a protocol has been approved, any and all changes requested must be submitted as an IACUC Amendme iRIS. The Amendment must include an attached revised IACUC Application. All proposed changes must be approved by the IACUC or designee in writing before implementation by the PI.[4,10]

B. Certain additions, deletions, and/or changes to an approved protocol may occur via the Administrative Approv process as outlined in Policy #8.

C. Significant changes to an approved protocol may occur via the Veterinary Verification and Consultation[3] process as outlined in Policy #8.

References

1. *Animal Welfare Act and Animal Welfare Regulations* § 2.31
2. *AVMA Animal Welfare Principles*
3. *Guidance on Significant Changes to Animal Activities* NOT-OD-14-126
4. *Guide for the Care and Use of Laboratory Animals*
5. *Institutional Animal Care and Use Committee Guidebook*
6. *Standards and certification process for humane handling, care, treat0 0 1 .dance on Signv0.0004( ) 0 1 .9and*

Policy 7: Designated Reviews

1. Background

Only two protocol review methods fulfill USDA and PHS requirements: full committee review (FCR) and designated member review (DMR). Ordinarily, for FCR the IACUC members (during a convened meeting) review and vote on the acceptability of animal use protocols submitted by a principal investigator (PI). For DMR, at least one member of the IACUC shall review those protocols and have the authority to approve, require modifications (to secure approval) or request FCR. DMR may be used to secure approval for (1) new or renewal protocols and amendments that require immediate evaluation, (2) Annual Status Reports (ASR), or (3) protocols that have first undergone FCR.

2. Designated Member Review

This section will describe the DMR process as applied to submissions of either protocols or amendments that require immediate evaluation. The use of this process must be justified.

A. The PI shall submit an appropriately completed IACUC protocol form and a separate email request for a DMR to the IACUC staff. The email request must contain a justification for conducting a DMR.

B. The IACUC staff will notify the IACUC Chair (or designee) of the request. The Chair will determine whether or not to grant the request for a DMR. The IACUC Chair (or designee) will advise the PI at this step only if the DMR request will not be forwarded to IACUC members.

C.

TTUHSC IACUC Policy

6. **VVC Veterinary Verification and Consultation**

Certain specific significant changes (outlined in OLAW Guidance #NOT-OD-14-126 and further specified in this policy) may be approved by the Institutional Veterinarian (IVet), with proper consultation and review of the approved protocol.

The IVet is not conducting DMR, but is serving as a subject matter expert to verify that compliance with the IACUC reviewed and IACUC approved policy is appropriate for the animals in various circumstances. Consultation with the IVet will be documented. The IVet may refer any request to the IACUC for full committee review. Documentation of the Consultation will be forwarded to the IACUC Administrator for attachment to the protocol. The PI shall submit a protocol amendment within one month of the Consultation. This amendment may be approved as needed by Designated Member Review by an eligible IACUC member who is not the IVet. The following changes may be handled administratively through the IVet and IACUC staff:

A. Anesthesia, analgesia, sedation, or experimental substance;
B. Euthanasia to any method approved in the AVMA Guidelines for the Euthanasia of Animals; and,
C. Duration, frequency, type, or number of procedures performed on an animal.

VVC cannot be used to add new procedures or study objectives to a previously approved protocol. In addition, modifications to existing procedures with the possibility that animal welfare will be compromised must undergo committee review. In particular, the following changes require committee review:

A. Change from non-survival to survival surgery;
B. Changes resulting in greater pain, distress, or degree of invasiveness; and,
C. Changes that affect personnel safety.

Reporting to IACUC

All administratively approved amendments will be placed on the agenda for the next scheduled meeting of the IACUC for informational purposes. All administrative approvals take effect when verification of all requirements is completed and written notification from the IACUC or their designee is sent to the PI.

Policy 9: Review of Grant Content with IACUC Protocol

1. Purpose

The NIH and NSF require verification of research protocols by grantee institutions to ensure compliance with the ter
of the award. Further, the Institution is responsible for ensuring that the information that the IACUC reviews and
approves is congruent with what is in the application or proposal. This may require comparison of the proposed

D. The IACUC member will complete a timely review of the grant document(s) and the protocol and determine th general level of congruence.

1) If no change in scope is noted, this result will be documented in iRIS.

For instances where there may be a change in scope:

2) In cases where the grant describes animal experiments that are not part of an approved protocol, but no anir have been used:

a) The Reviewer will ask the PI for clarification or request that the protocol be amended to be consistent with the grant.

b) The Principal Investigator will be responsible for notifying the funding agency and providing documentation of such to the IACUC if any procedures will not be conducted as originally proposed.

3) In cases where the grant describes animal experiments that are not part of an approved protocol (or dive significantly from animal experiments that have been approved) and animals have been used:

a) The matter will be handled in accordance with Policy 10 ("Complaints of Mistreatment of Animals and grant Policy Noncompliance at TTUHSC").

b) The IACUC Cha6 647 0 0 1w20(PI)9( )11(f)-3(or)-3( )11(cl)5(ar)5(i)-4(f)7(i)-4(ca)8(t)-4(i)-4(o)11(n)11(o

Policy 10:

c) The Complainant and the person who is the subject of the complaint may have an advisor at the meetin with Subcommittee, provided that written notice is given to the IACUC Chair at least two (2) business day in advance of the meeting with the Subcommittee. Advisors are present in an advisory capacity only and are not permitted to speak or present information directly to the Subcommittee.
d) If the Complainant and/or the person who is the subject of the complaint elects not to meet with th Subcommittee, the complaint will be reviewed based on information available, and a recommendation will be made by the Subcommittee. No inference may be drawn against the Complainant and/or the person w is the subject of the complaint for failure to appear before the Subcommittee.
e) At the meeting, the Subcommittee may call the IVet or any other witnesses as it deems necessary.
f) When the Subcommittee concludes that all pertinent information has been received, anyone who is no voting member of the Subcommittee shall be excused, and the Subcommittee shall discuss, deliberate, and prepare its findings and recommendations. By majority vote of those present, the Subcommittee wi determine whether mistreatment of animals or policy noncompliance has occurred (findings), and recommendations. If the findings and recommendations are not unanimous, opinion(s) may be written a attached by those who differ with the majorityôs findings and recommendations.

3) The Subcommittee will present its findings and recommendations, including any differing opinion(s), to the

Policy 11: Breeding Colonies

1. Purpose

The purpose of a breeding colony protocol is to generate animals for use in approved experimental protocols. Breed
colony protocols must be submitted *separately* from experimental protocols that use animals from the breeding colony.

2. PI Responsibilities

A Principal Investigator (PI) wishing to establish a breeding colony at any TTUHSC campus facility shall submit a
breeding protocol application to the IACUC using the IACUC Application Form (IAF) available in iRIS.

PI must contact the Laboratory Animal Resource Center (LARC) staff at the corresponding campus (Lubbock, Abile
or Amarillo) regarding space availability and all housing requirements needed prior to the submission of the IAF
breeding protocol application.

PI shall list on the IAF application adequate numbers of personnel who are knowledgeable and experienced in breed
and who have sufficient time available to help maintain the breeding colony. The use of temporary personnel, such
summer students, is highly discouraged without direct supervision.

PI must include in the IAF a plan for reducing/avoiding/eliminating genetic drift in colonies that will be maintained for
more than ten (10) generations.

Policy 12: Survival Surgery

1. Major and Minor Surgery

Major survival surgery is defined (*Guide*, 8th ed.) as the penetration and exposure of a body cavity, or induction of substantial impairment of physical or physiologic functions (such as laparotomy, thoracotomy, craniotomy, joint replacement, and limb amputation), or the extensive dissection or transection of tissue.

Minor survival surgery does not expose a body cavity and causes little or no physical impairment (for example, wound suturing, peripheral vessel cannulation, routine farm animal procedures such as castration, dehorning, and repair of prolapses, and most procedures routinely done on an "outpatient" basis in veterinary clinical practice). Minor procedures require aseptic technique and sterilized instruments as well as appropriate application of anesthesia and analgesia. Although laparoscopic procedures are often performed on an "outpatient" basis, appropriate aseptic technique is still necessary.

2. Multiple Major Surgical Procedures (General)

Multiple major survival surgical procedures on a single animal are discouraged, but may be permitted if scientifically justified by the user and approved by the IACUC.

A. Examples of acceptable justification for multiple surgeries include:
   1) the presence of related components of a research project;
   2) the conservation of scarce animal resources; and,
   3) clinical teaching purposes.

B. The principal investigator (PI) must provide clear documentation of the following items to the IACUC:
   1) the background literature, which adequately supports the need for multiple procedures and the potential significance of findings gleaned from these surgeries; and,
   2) the number of major surgeries proposed, which will be the absolute minimum required to obtain the necessary data.

3. Major USDA Species Survival Surgery

USDA Species survival surgery must be performed in the surgical suite in the local campus laboratory animal resou

Policy 13: Rodent Survival Surgery

1. Facility

A. A dedicated facility for rodent surgery is not required. A rodent surgical area can be a room or portion of a room that easily sanitized. The immediate surgical area must not be used for other purposes during the time of surgery.

B. Surgery must be conducted on a clean, uncluttered lab bench or table. The surface of the lab bench or table must impervious to liquids. The work surface must be wiped with disinfectant before and after use or covered with a cle drape.

C. The surgery area MUST be separate from the area where hair is removed from the animal.

D. The area surgery is performed MUST be a laboratory that is not currently being used for bulk storage.

2. Training

Professional and technical personnel and students who perform anesthesia, analgesia, and surgery must be trained to accomplish these tasks. The LARC Veterinarian is available to provide assistance with or training in, aseptic a surgical techniques and the proper administration of anesthesia and analgesia. All new technicians and students to a protocol must be trained by the LARC.

3. Instruments

A. Instrument Preparation

All instruments must be cleaned and sterilized prior to use. First, all instruments must be cleaned of any debris hand washing or by mechanical washing. Then, prior to surgery, the instruments must be sterilized using one of the following methods. The method of choice may be determined by the procedure, the delicacy of the surgic instruments or the devices being used. Steam autoclaving is the preferred method.

1) Heat Sterilization

a) Steam Autoclave: The instruments must be placed in a specially designed pack or wrapped in sterile drap or cloths and secured with a heat-sensitive tape. The use of such tape provides some indication that the

B. Surgery on Multiple Animals

If surgeries are to be performed on a group of animals, previously sterilized instruments can be ñquickò sterilized using a glass bead sterilizer or ñflashò autoclaved. Instruments should be thoroughly clean of blood or tissue prior to sterilization. No more than five successive surgeries can use instruments ñquickò-disinfected as described above.

1) Sterile (Hot) Bead Sterilizer: This instrument will sterilize the tips of metal instruments in 15 seconds. Instruments and glass beads should be clean and free of tissue or blood. Only clean, cooled instruments may be used on the animals. After immersion in a hot bead sterilizer, instruments should be doused in saline or sterile water (in a sterile container) before use on animals to prevent thermal injury.

NOTE: Most sterile bead sterilizers take thirty minutes to heat.
NOTE: This method of sterilization may not be used for the initial sterilization of instruments; it is only appropriate when performing 5 or fewer surgeries using a single pack.

4. Anesthesia and Analgesia Selection

Contact the Institutional Veterinarian for recommendations for appropriate anesthetics and/or analgesics for the species you are using.

The use of a single analgesic agent or combination will depend on the procedure performed. This table provides some guidelines for determining the expected degree of pain associated with various surgical procedures. For specific advice please consult the Institutional Veterinarian.

Rat
- Buprenorphine 0.01-0.05mg/kg SQ or IM every 8-12 hours
- Buprenorphine 0.01-0.05mg/kg SQ or IM every 8-12 hours + Carprofen 5mg/kg q 24 hours
- Buprenorphine 0.01-0.05mg/kg SQ or IM every 8-12 hours + Meloxicam 1-2 mg/kg once daily
- Extended release buprenorphine 1.0-1.25 mg/kg SQ once.
- Carprofen 5-10mg/kg orally or SQ q 12-24 hours; can be combined with opioids
- Meloxicam, 1.0-3.0mg/kg PO, SQ, IP daily; can be combined with opioids
- Local: lidocaine, lidocaine/bupivicaine, lidocaine patch, bupivacaine

5. Aseptic Preparation of the Animal

A. The animal must be anesthetized with a suitable anesthetic using the doses and procedure approved by the IAC

B. An ophthalmic lubricant must be applied to the eyes to prevent corneal drying.

C. Hair must be removed from the incision site with clippers, appropriate razor, and/or hair removal product (i.e., Nai applied as directed and thoroughly rinsed off to prevent continual residue action. There should be a minimum of 1cm of shaved area surrounding the incision site.

D. Skin Preparation: The bare skin at the incision site must be thoroughly cleansed with a surgical scrub to clean skin and create a sterile field around the incision site. Starting in the middle, and continuing in an outward spiral, apply the scrub at least three times alternating each scrub with 70% isopropyl or ethyl alcohol, sterile water, saline. New gauze or applicators should be used for each cleansing.

Note: Copious application of topical alcohol in rodents will soak the animal and lead to hypothermia. The use o cotton tip applicators is ideal during the skin preparation process. OB/GYN swabs with large heads work well.

These surgical antiseptic agents may be used:

1) Povidone iodine scrub: A good choice for a surgical preparation with a broad spectrum of activity, includin Mycobacterium. Antiseptic activity is rapid and persistent if not removed.

2) Chlorhexidine scrub: The 4% aqueous preparation effectively cleans the skin with a rapid onset of activity and a broad spectrum of activity with minimal loss of antiseptic activity.

NOTE: A scrub is different than a solution. A scrub contains a soap, and therefore has cleaning properties tha solution does not have. Scrubs are not to be mixed or diluted with water.

Antiseptic agents must be rinsed from the skin with sterile water, sterile saline or alcohol prior to surgery.

6. Preparation by Surgeon

A. Hands must be washed with antiseptic soap or a surgical detergent/scrub (iodophors or chlorhexidine) and rinsed with water. Sterile surgical gloves must be sba TJ Eolgloves m, F7 11.04 Tf 1 0 0 1 36 685.3 Tm 0 g 0 G [<0

D. If working alone, the surgeon must have the animal anesthetized and positioned prior to gloving.

E. The first layer of a double

9. Surgical Records

A. A ñRodent Surgery Cardò should be placed on the cage of post-surgical animals and remain until sutures/staples are removed. These cards are available from the LARC in each facility.

B. A "Surgical Record" must be completed immediately after the surgical procedure is performed. Records may be somewhat abbreviated and in composite format and can be included as part of the research data collected, but must also be available for review.

C. Records must identify the type of surgical procedure performed, the date of the procedure, the person who performed the procedure (or initials), information on drug administration (including anesthesia and analgesia), and peri-operative monitoring, and must be maintained by the laboratory. This information must be available for review by regulatory bodies, including the IACUC.

10. Suture Selection

Surgical wounds should be closed using appropriate techniques and materials. The following table is a guide to the types of sutures that are available. For rodents, 4-0 size is optimal for most procedures.

Suture	Characteristics and Frequent Uses
Vicryl®, Dexon®	Absorbable; 60-90 days. Ligate or suture tissues where an absorbable suture is desirable.
PDS®, Maxon®	

11. Exceptions

All planned deviations from this policy must be approved by the IACUC prior to the performance of the surgical procedure. Emergency situations that involve deviations from IACUC-approved procedures must be reported to the Institutional Veterinarian and the IACUC within one week of its occurrence.

3. Requirements Specific for Tail Biopsy (Clipping) (mice > 21 Days and/or > 2 mm tissue collection)

A. Removal of tail segments including amputation between bony segments is considered to be a painful procedure requires general anesthesia and analgesics as studies support that tail biopsy in older ages and/or lengths may result in multi-week effects on behavior and physiology.[7] Therefore, if anesthesia and/or analgesics are contraindicated, the investigator must provide adequate scientific justification and obtain prior IACUC approval.

B. Alternatives to tailsnips and biopsies should be considered. Small quantities of blood from distal veins (e.g. saphenous vein) or skin samples from ear punches may be used for analysis, and PCR assays using cheek s and hair bulbs have also been described.[3,6]

4. Guidelines for Ear Punching for genotyping and Identification

A. Method that removes small pieces of tissue using an ear punch device. Ear punch or notching instrument disinfected with alcohol or a hot bead sterilizer between animals to avoid sample cation. Anticoagulant

B. Procedure should be performed on animals (> 14 d) when the pinnae (ears) are generally large and thin enoug

Abnormalities would include:

a. inactivity
b. labored breathing
c. sunken eyes
d. hunched posture
e. piloerection/matted fur
f. one or more unresolving skin ulcers
g. abnormal vocalization when handled
h. tumors that affect normal function or that become ulcerated
i. persistent coughing
j. excessive scratching or inability to rest due to dermal changes

The circumstances described above represent a conservative minimum and are not necessarily consistent with pain and distress-free research. In his/her protocol applications, the PI must identify endpoints that avoid or minimize discomfort, distress and pain to the animals and that are compatible with experimental objectives.

Appendix 1 and 2 provide examples of alterative assessments that may be used to establish humane endpoints in specific IACUC protocols, depending on how the experimental model affects animal physiology.

If the LARC or laboratory staff identify an animal that displays any of the behaviors described above, the LARC c

3. Toth. ñDefining the Moribund Condition as an Experimental Endpoint for Animal Research.ò *ILAR Journal*. 41(2) January, 2000, p. 72.

Policy 15 Appendix I. Example Scoring Systems for Humane Endpoints

The following system parameters should be assessed in the order listed in the table. Evaluation of behavior and neurologic signs requires minor handling. Hydration and weight loss require manipulation of the mice. Care should be taken wh

Policy 17: Expired Drugs

1. Background

The use of expired drugs or medical materials (i.e., fluids, disinfectant solutions, catheters, sutures) in animals considered both inadequate veterinary care and poor experimental technique. These materials may lose pote function, or even degrade to toxic byproducts if stored after their expiration dates resulting in unpredictable effects th can jeopardize animal welfare and affect experimental results. Even pharmaceutical grade drugs are subject to th effects..

2. Responsibility

Each researcher is responsible and accountable for ensuring that expired materials are not used in animal rese Principal Investigators (PIs) and laboratory staff are responsible for ensuring that expired drugs and medical mater are properly disposed after their expiration date or labelled ñNot for Use in Animalsò.

3. Protocol Procedures

A. **Drug:** for this purpose, any regulatory agency approved or investigational substance, agent, biologic, or chemic listed in a pharmacopeia, chemical supply catalogue, or synthesized or isolated extemporaneously in a laborat and administered to an animal by any route, including injection, inhalation, topical application, ingestion, electroporation or suppository, for use in the investigation, diagnosis, cure, mitigation, treatment or prevention disease or biology in humans or animals.

No expired drugs or fluids are allowed for use on animals in research or instruction, including terminal procedures All drugs must be discarded within one month of the manufacturerôs expiration date or labelled ñNot for Use in Animalsò.

B. **Expiration Date:** All chemicals used on or in animals must have an expiration date clearly labeled on the containe The expiration date is the date printed on the label/package for materials with a manufacturerôs expiration. While it is understood that manufacturer expiration dates a

Policy 18: Experimental Neoplasia in Rodents

1. Background

Experimental induction of neoplasia presents concerns for animal welfare. In particular, the humane endpoint for t

Policy 19 Other Adjuvants

1. Background

Adjuvants are compounds that stimulate the immune response. Although adjuvants (particularly Freund's Compl

Policy 20: Cervical Dislocation or Decapitation of Animals

The recommendations of the AVMA Guidelines for the Euthanasia of Animals: 2020 Edition serve as the standard for acceptable methods on euthanasia.

1. Euthanasia by Cervical Dislocation

The IACUC will allow cervical dislocation to be used as a primary method for euthanasia only for mice and rats (under 200g body weight) and only after demonstration by appropriate lab members of proficiency in the technique. (Please see Policy 21: Euthanasia for a description of the use of cervical dislocation or decapitation to confirm death after

1. Cooper JE, Ewbank R, Platt C, et al. Euthanasia of amphibians and reptiles. London: UFAW/WSPA, 1989.
2. Holson RR. Euthanasia by decapitation: evidence that this technique produces prompt, painless unconsciousness in laboratory rodents. Neurotoxicol Teratol 1992; 14:253-257.
3. Vanderwolf CH, Buzak DP, Cain RK, et al. Neocortical and hippocampal electrical activity following decapitation in the rat. Brain Research 1988; 451:340-344.
4. AVMA Guidelines for the Euthanasia of Animals: 2020 Edition

Policy 22: Use of Fertilized and Embryonated Avian Eggs

Any investigator intending to use fertilized and embryonated avian eggs/embryos (i.e. chicken eggs and other avian spec where eggs are commercially available) before Day 15 of incubation need not have IACUC approval provided that t following criteria are met:

1. The PI must submit a Letter of Intent (LOI) to the IACUC, briefly stating what procedures will be performed on the embryonated eggs.

2. The Letter must state that the embryonated eggs will be used before Day 15.

3. The Letter must state a detailed plan for veterinary staff intervention in the event that any egg inadvertently hatches.

4. The Letter must state that veterinary staff assistance will be sought for humane euthanasia of any embryo that rea Day 15 of development or beyond.

5. The Letter must state that the IACUC Chair will be notified when eggs are discovered that have reached Day 15 o

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