IACUC Semi-Annual Program Review Subcommittee Meeting

April 24, 2019

IACUC Semi-Annual Program Review and Animal Facility Inspection Report

Semi-Annual Program Review

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- IACUC Member Signature Pages
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- Semi-Annual Program Review Agenda

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Memorandum to: Dr. Terry Magnuson

From: Institutional Animal Care and Use Committee (IACUC)

Subject: Semiannual Report of the Program Review and Facility Inspection

Date: June 25, 2019

This report summarizes the IACUC's results of its most recent program review and facility inspection, as required by the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals (Policy), Section IV.B.1.-3., the *Guide for the Care and Use of Laboratory Animals* (*Guide*), and the Animal Welfare Act (AWA) regulations, as applicable. Submission of semiannual reports to the Institutional Official is a condition of this institution's Animal Welfare Assurance with the NIH Office of Laboratory Animal Welfare (OLAW).

Since the last review, the following changes have occurred in the institution's program for animal care and use (PHS Policy IV.A.1.a.-i.): [*optional*]

> **April 24, 2019 Semiannual Program Review and Inspection Report Subcommittee Meeting Summary:** The program review details are found in the April 24, 2019 IACUC meeting minutes and the accompanying PDF included as part of this report. All IACUC members received an electronic copy of the Semiannual Program Review Agenda as well as the Semiannual Facility Inspection Report and were invited to attend the subcommittee meeting. The IACUC Chair presented the subcommittee summary information to the IACUC at the May 3, 2019 convened meeting. A majority of the quorum present at the meeting voted to accept the subcommittee's conclusion. After evaluating all the information presented, the IACUC concluded that the UNC-Chapel Hill animal care program had no significant or minor deficiencies.
>
> The following bullets detail some of the changes that occurred in our animal care program during the last six (6) months.
>
> Facility Updates:
>
> - The schematic design for the   is being finalized. Completion of   is expected for 2023. Currently,   is over budget by $7M. To offset this downfall, a NIH grant was submitted for $8M funding support.
>
> - Major efforts are ongoing to enhance/expand animal facilities. Improvements are being made at the   which are expected to be completed by August 2019.   and   facilities are undergoing renovations and are expected to cover for the loss of space due to the shutdown of   ; the latter is expected by September 2019.
>
> -   vivarium is expected to be opened in the summer of 2019. The   vivarium is being expanded to accommodate large animals. Funding has been set aside for a permanent vivarium in   . These renovated facilities are

expected to mostly accommodate large animals and nonrodents, and in turn further diversify UNC-CH's "research animal portfolio".

Division of Comparative Medicine (DCM) Updates:

- Efforts have continued to enhance disaster planning and emergency preparedness. For instance, 2 portable generators have been purchased for backup purposes, and individuals have been designated for Satellite facilities to help aid in emergencies.

- DCM has seen an increase of up to 100% in large animal surgical procedures, mostly reflecting an increase in surgeries with pigs. An ongoing increase in surgeries is being anticipated and accounted for renovations of the various vivaria.

- 5 out of 6   facilities are now under direct DCM oversite and the transition is underway for the remaining   facility.

- Improvement of DCM's Enrichment Program for dogs continues. This includes renovations to the   and   facilities to increase exercise yards; outside time for the dogs has increased >50%. In addition, time which staff get to "socialize" with the dogs has been increased, which also is now being recorded. Documentation will permit rationale changes if needed to improve the program.

Office of Animal Care and Use (OACU) Updates:

- There has been no significant change in the overall numbers of Facility, laboratory or satellite semi-annual inspections by the Training and Compliance team. Notably, for 64 laboratory inspections only 2 deficiencies were detected.

- Efforts continue to minimize regulatory burden which has included changes in ACAP, and increased use of DMR.

- The office has had difficulty recruiting for a vacant Training and Compliance position and one   For an office of 10 members, this is a significant staffing decrease. However, the office is managing to fulfill all regulatory requirements and institutional expectations despite the short staffing.

- The majority of IACUC standards and polices including those concerning USDA regulated species have now been revised, using the new format required for all UNC standards and policies.

- One-on-one training of research personnel by OACU has increased over the last 6 months. Investigators greatly appreciate these one-on-one interactions.

IACUC Updates:

- There were 7 animal concern reports in the last 6 months, all of which were reportable to OLAW. This was an increase of 1 compared to the previous 6 month review period. There were 4 self-reports. This is attributed to the labs working closely with the veterinary staff who will direct them to self-report when appropriate.

- The new mouse breeding/cage standard is currently being rolled out. The revised approach entails: 1) a new card system to clearly define the date at which mice need to be weaned, and 2) weaning animals based on 23 days of age as opposed to the previous 10 gm weight parameter.

Environment Health and Safety (EHS) Updates:

- EHS for 2019 has documented no animal incidents. The use of robotics for cage changing/washing has also limited DCM-linked injuries.

I. Description of the Nature and Extent of the Institution's Adherence to the PHS Policy, the *Guide*, and the AWA

Departures from the PHS Policy, the *Guide*, and the AWA.
Select A or B:
[x]   A. There were no departures during this reporting period.
[ ]   B. The following departures have been reviewed and approved by the IACUC: [*include reason for each departure*]

Performance Based Items, Guide-based Exceptions, and Animal Welfare Act Exceptions Reviewed and Approved by the IACUC

Ongoing performance-based items:
- *Mouse cage density - IACUC continued to endorse the UNC Cage Density Standard for Breeding Mice. The IACUC subcommittee determined during the April 24, 2018 program review that this performance-based standard continues to be acceptable based on over 15 years of satisfactory performance and animal health.*
- *Cage change for individually ventilated mouse cages - IACUC continues to endorse the 2-week interval for cage change of individually ventilated mouse cages. During the April 24, 2019 program review the subcommittee determined that this performance-based standard continued to be acceptable based on satisfactory performance standards and animal health.*

Guide-based Exceptions:
- *Single housing of social animals – justification for single housing of social animals is described within each individual ACAP and the IACUC approves case-by-case during protocol review. During the April 24, 2019 program review the subcommittee determined that this exception continued to be acceptable.*

- *Housing of different animal species in the same housing room – there are a few instances where animals are housed in individually ventilated cages (mice/rats, rats/gerbils, guinea pigs/rats, hamsters/gerbils) and in filter top caging (reptiles/amphibians and fish/amphibians) within the same room. The need for this exception to the Guide was reviewed during the April 24, 2019 program review the subcommittee determined that this exception continued to be acceptable.*

Animal Welfare Act Exceptions:
- *Survival surgery on a USDA-regulated species is performed outside of the dedicated DCM surgical suite based on scientific necessity as described in an IACUC-approved protocol. A newly IACUC-approved space to be used solely for surgeries with ferrets and cleaned and maintained in good repair. Surgery will be performed using aseptic technique and the animal's vital parameters are monitored continuously during the surgical procedure. DCM veterinary services is involved in anesthesia selection, timing of surgeries, and pre- and post-operative care of animals. The need for this exception to the Guide was reviewed during the April 24, 2019 program review and the subcommittee determined that this exception continued to be acceptable.*

II. Deficiencies in the Institution's Animal Care and Use Program

Animal Care and Use Program Review Date(s):
Select A or B:
[x] A. There were no deficiencies in the program during this reporting period.
[   ] B. The following deficiencies have been identified: [*describe each deficiency, identify each deficiency as either minor or significant, and provide a reasonable and specific plan and schedule for the correction of each deficiency, deficiencies may be recorded on a separate table and attached, the last page of OLAW's Sample Semiannual Program Review and Facility Inspection Checklist provides a sample table*]

During the April 24, 2019 IACUC Semi-annual Program Review subcommittee meeting, the IACUC subcommittee identified no minor or significant deficiencies in the institution's animal care and use program. The full IACUC met on May 3, 2019 to discuss the results of the subcommittee meeting. A majority of the IACUC quorum voted unanimously to accept the subcommittee's recommendations.

III. Deficiencies in the Institution's Animal Facility

Animal Facility Inspection Date(s): multiple
Select A or B:
[ ]   A. There were no deficiencies in the animal facility during this reporting period.
[x]   B. The following deficiencies have been identified: [*describe each deficiency, identify each deficiency as either minor or significant, and provide a reasonable and specific plan and schedule for the correction of each deficiency, deficiencies may be recorded on a separate table and attached, the last page of OLAW's Sample Semiannual Program Review and Facility Inspection Checklist provides a sample table*]

Please see accompanying semi-annual facility and laboratory inspection report in which minor deficiencies were identified and corrected.

IV. Minority Views

Select A or B:
[x]   A. No minority views were submitted or expressed.
[ ]   B. The following minority views were expressed: [*insert minority views here or attach*]

NA

V. Status of AAALAC Accreditation [*identify accredited facilities, if applicable*]

The University of North Carolina at Chapel Hill animal care and use program remains fully accredited with AAALAC International. The most recent AAALAC site visit was conducted May 30 – June 2, 2017. The next visit will take place in summer 2020.

VI. Signatures [*See accompanying signature sheet containing signatures of a majority of the IACUC members required by AWAR (§2.31,c,3).*]

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IACUC Meeting Sign-In Sheet

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DATE: JUNE 7, 2019

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Minutes of the UNC-CH Institutional Animal Care and Use Committee

Semiannual Animal Care Program Review Subcommittee Meeting, April 24, 2019

A subcommittee of the Institutional Animal Care and Use Committee (IACUC) met to review the Animal Care and Use Program on April 24, 2019 starting at 8:00 am. The meeting took place in the]

The individuals attending the meeting were the following:

The Chair started the proceedings by bringing to order the semiannual program review. Copies of the semiannual inspection reports and the agenda and supporting documentation were provided electronically (PDF file) to all of the IACUC members, regardless of whether they were attending the meeting. The Chair directed the subcommittee to refer to the agenda listing all items to be covered at today's meeting (see below).

The list below outlines all items and aspects of the program the IACUC assesses every six months during this program review. None of the items in the program review were categorized by the subcommittee as a minor deficiency (summarized starting next paragraph). Where there was no discussion, whether because there was no problem or because the information was covered in a document, the item appears on the list but is not followed by any remarks or explanation.

    I.   Issues that were addressed in the previous review

        A. Carolina WISE updates
        B. Homes for Animal Heroes/Adoption MOU
        C. NHP updates
        D. IACUC membership
        E. Update on Dog exercise program and behaviorist visit
        F. ACAP and OACU Administrative updates
        G. Regulatory Burden updates
        H. Mouse Breeding/Cage Density issues

reminded the group that the goal of this subcommittee meeting is to determine the status of the animal use program and identify any major or minor deficiencies. The list of issues addressed at the previous Program Review Subcommittee Meeting was reviewed.

    II. University Administration Updates – Institutional Official
        A. Overview of progress of Institutional support for animal care program
        B. Resources necessary to manage the animal care program and veterinary care are provided

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C. DCM and IACUC/OACU budgets

_ _ _ _ *informed the subcommittee that the OVCR was working on the   and others. The planning is moving forward and while there are some items that would be good to include, the budget necessitates keeping this in check.*

III. Abbreviated OLAW Semi-annual Program Review Checklist

A. Institutional Polices and Responsibilities
  1. Animal Care and Use Program
    • Responsibility for animal well-being is assumed by all members of the program (*Guide*, p 1) [*must*]
    • Resources necessary to manage program of veterinary care are provided (*Guide*, p 14) [*must*]
    • Responsibilities for daily animal care and facility management are assigned to specific individual(s) when a full-time veterinarian is not available on site (*Guide*, p 14) [*must*]

' informed the subcommittee that issued raised are addressed in a timely manner and discussed at the monthly IACUC and DCM/IACUC subcommittee meetings as necessary.

  2. Disaster Planning and Emergency Preparedness
    • Disaster plans for each facility to include satellite locations are in place (*Guide*, p 35, p 75) [*must*]
    • Plans include provisions for euthanasia (*Guide*, p 35) [*must*]

' informed the subcommittee that after the last major shutdowns for water contamination, a winter storm, and a hurricane, the disaster plan was evaluated. A list of major concerns was developed, including emergency water, emergency power, and staffing. The plan was updated and DCM worked with the OACU to update the satellite facility plans as well. More detail was included and a general checklist was created as a guide. Two portable backup generators were purchased with the plan to relocate these as needed to buildings not supplied by backup power for life support systems.   A staffing and backup memo went out, asking each lab to identify a person (not a student) who can come to campus during an emergency. For most labs, the PI was selected as the designated emergency contact. noted that this was helpful when added to the   proposal.

  3. IACUC
    • Meets as necessary to fulfill responsibilities (*Guide*, p 25) [*must*]
    • IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions (*Guide*, p 26) [*must*]

informed the subcommittee that the IACUC meets regularly to address all topics concerning animal care and welfare, and the committee is properly constituted.

4. IACUC Protocol Review – Special Considerations

- Restraint devices are justified in the animal use protocols (*Guide*, p 29) [*must*]
- Veterinary care is provided if lesions or illness result from restraint (*Guide*, p 30) [*must*]
- USDA - requires that the IACUC conduct continuing reviews of activities...not less than annually." [PHS Policy requires a complete new review every 3 years utilizing all the criteria for initial review]
- USDA – requires that the principal investigator (PI) consider alternatives to procedures that cause more than momentary or slight pain or distress to the animals, and has provided a written narrative description of the methods and sources...used to determine that alternatives were not available."
- USDA – requires that the PI has provided written assurance that the activities do not unnecessarily duplicate previous experiments."
- USDA - procedures that may cause more than momentary or slight pain or distress to the animals will involve in their planning, consultation with the attending veterinarian or his or her designee; [PHS Policy does not specify veterinary consultation] and not include paralytics without the use of anesthesia
- USDA – requires that no animal will be used in more than one major operative procedure from which   it is allowed to recover, unless justified for scientific reasons by the principal investigator, in writing..."

5. IACUC Membership and Functions

- Methods for reporting and investigating animal welfare concerns are in place (*Guide*, p 23) [*must*]
- Requests for exemptions from major survival surgical procedure restrictions are made to USDA/APHIS[i] (*Guide*, p 30) [*must*]
- Semiannual inspections [information is included in the PDF for member review]
  i.   DCM animal facilities and procedure rooms
  ii. PI laboratories where surgical or painful procedures conducted, USDA-regulated species work conducted, or animals housed for > 12 hours (USDA regulated) or > 24 hours (non USDA-regulated)
  iii. Satellite Facilities (PI maintained housing areas) – quarterly inspections [14]

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     iv.   Animal Procedural Space Exceptions (APSE) –[4]
- Mouse breeding compliance

informed the subcommittee that some satellite facilities have now closed or become DCM facilities, and overall there was an increase in the number of inspections over the last 6 months of 8-19%.

6. IACUC Training
- IACUC member monthly training

informed the subcommittee that training is provided as part of the monthly IACUC meetings. Recent trainings have included use of the review template for primary reviewers and a discussion about the importance of literature searches. Members are encouraged to submit suggestions for future trainings.

7. IACUC Records and Reporting Requirements
- Reports to Office of Laboratory Animal Welfare (OLAW)
    i.   promptly advises OLAW of serious/ongoing *Guide* deviations or *PHS Policy* noncompliance
    ii. promptly advises OLAW of any suspension of activity by the IACUC - none
    iii. reports include any minority IACUC views – none
    iv. annual report with required information to OLAW documents program changes and dates of IACUC semiannual review

- Reports to United States Department of Agriculture [USDA]
    i.   "...each reporting facility shall submit an annual report to the APHIS, AC sector supervisor for the State where the facility is located on or before December 1 of each calendar year." [The USDA annual report has a list of requirements which differ from PHS annual report]
    ii. exceptions to standards and regulations must be specified and explained by the principal investigator, approved by the IACUC and attached to the facility's annual report.: Protocol(s) 17-094, 17-182, 18-047, 19-096
    iii. any failure to adhere to the plan and schedule that results in a significant deficiency remaining uncorrected shall be reported in writing within 15 business days by the IACUC, through the institutional official, to APHIS and any Federal agency funding that activity - none
    iv. reports of suspension of covered species activity by the IACUC to USDA and any Federal funding agency – none

informed the subcommittee of the schedule of full reports and updates submitted to OLAW and the USDA, reporting of USDA covered species with associated pain categories and exceptions, as well as explaining the reporting process. There were no minority views to report in the last 6 months. There continues to be an exception for covered species surgical space utilized by one PI, and a new space was inspected this week. A second PI will be conducting similar research in the near future. There were no suspensions or failure to report significant deficiencies to the USDA in the last six months.

8. Veterinary Care [Details will be discussed in next section –Veterinary Care]
- Veterinary access to all animals is provided (*Guide*, p 14) [*must*]
- Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (*Guide*, p 14) [*must*]
- Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol (*Guide*, p 5) [*must*]
- Veterinarian provides consultation when interventional control is not possible (*Guide*, p 5) [*must]*
- Veterinarian(s) have experience and training in species used (*Guide*, p 15) [*must*]

9. Personnel Qualifications and Training
- All personnel are adequately educated, trained, and/or qualified in basic principles of laboratory animal science. Personnel included: [*must*]
- OACU Training
  i. one-on-one training
  ii. LAC training
  iii. mouse breeding training
  iv. mouse and rat handling and aseptic technique classes
  v. informational sessions and mandatory meetings

informed the subcommittee that there has been an increase of 53% enrollees in aseptic techniques classes and one-on-one training is up 12%, but that attendance is down for regular mouse and rat classes. Offering more one-on-one training opportunities and recent increases in the number of mouse/rat handling classes each month has allowed for individualized attention and a higher quality training experience.

10. Occupational Health and Safety of Personnel
- Program is in place and is consistent with federal, state, and local regulations (*Guide*, p 17) [*must*]
- Considers confidentiality and other legal factors as required by federal, state and local regulations (*Guide*, p 22) [*must*]
- If serum samples are collected, the purpose is consistent with federal and state laws (*Guide*, p 22) [*must*]

informed the subcommittee that hazardous agent review has been going well with minimal delays. 90% of individuals are compliant with the reporting and training requirements. EHS is working with DCM on a new incident investigation process for accidents to identify root causes and put in place preventative actions. In 2019 there have been no incidents with animals that required reporting to the NIH. From 2013-2019 the reports of injuries has been down overall. DCM accounts for less than 10% of total injury claims reported to the University. 99% of animal workers on campus have completed their annual review, with only one requiring further evaluation at the   informed the subcommittee that at a recent enterprise risk management event it was discussed that one of the conditions of a recent settlement at a local university was that they talk to other institutions about prevention. The university offered to present to a group at UNC if there was interest.   noted that EHS will likely see a decrease in injuries as facilities are moved to automated cage wash as 50% of DCM injuries are related to cage wash, and there was a 20% decrease in injuries when   went to automation.

11. Personnel Security

12. Investigating & Reporting Animal Welfare Concerns
- Methods for investigating and reporting animal welfare concerns are established (*Guide*, p 23) [*must*]
- Reported concerns and corrective actions are documented (*Guide*, p 24)
- Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (*Guide*, p 24)
- Includes multiple contacts (*Guide*, p 24)
- Includes anonymity, whistle blower policy, nondiscrimination and reprisal protection (*Guide*, p 24)
- No facility employee, Committee member, or laboratory personnel shall be discriminated against or be subject to any reprisal for reporting violations of any regulation or standards under the Act." [USDA requirement additional to PHS Policy]
- Animal Concern Reports and Trends

informed the subcommittee that there was an increase of 1 ACR from this time last year. There are no clear trends for ACRs, and the number of self-reports indicate PIs are comfortable with this process. It is also helpful that DCM vets are working with the PIs as soon as the problem is identified and encouraging this reporting.   commented that this element of trust is a good thing for the IACUC.

B. Veterinary Care
1. Clinical Care and Management
- Veterinary program offers high quality of care and ethical standards (*Guide*, p 105) [*must*]
- Procedures established for timely reporting of animal injury, illness, or disease (*Guide*, p 114) [*must*]

- Procedures established for veterinary assessment, treatment, or euthanasia (*Guide*, p 114) [*must*]
- Veterinarian is authorized to treat, relieve pain, and/or euthanize (*Guide*, p 114) [*must*]

informed the subcommittee that the total clinical care cases remain steady at about 5500-5600 per year. The majority of these cases involve mice, and there have not been any upswings in the type or species.

2. Animal Procurement and Transportation/Preventative Medicine

- Procedures for lawful animal procurement are in place (*Guide*, p 106) [*must*]
- Procedures for compliance with animal transportation regulations, including international requirements, are in place (*Guide*, p 107) [*must*]

informed the subcommittee that intra-university transport is down slightly overall, imports are up from 50 to 55 and exports are down to 103 from 130 over the last 6 months. There have been no outbreaks in the last 6 months, and not since March 2017. Since the new PPE Standards have rolled out to campus there have been no health status changes.

3. Surgery

- Researchers have appropriate training to ensure good technique (*Guide*, p 115) [*must*]
- "...no animal will be used in more than one major operative procedure from which   it is allowed to recover unless...(it is) justified for scientific reasons...(or is) required as routine veterinary procedure...or other special circumstances as determined by the Administrator on an individual basis." [additional USDA justification for multiple survival surgeries]

informed the subcommittee that surgery continues to grow rapidly, with over a 100% increase in the first 3 months of this year compared to 2017-18, and this may exceed 200% increase in 2019. This is reflective of the increase in pig surgical protocols and is expected to sustain or grow with new faculty coming in. There is now a full-time surgical manager, and it is believed the department is in a good position to deal with the growth, but plans to hire more personnel if necessary.   ' noted that this was expected with changes to faculty, and DCM has been making cage purchases and remodeling decisions with a greater demand for large animals in mind. Feedback from recent meetings identified a need for more surgical space to eliminate bottlenecks.

4. Pain, Distress, Anesthesia and Analgesia

- Procedures are in place to assure antinoception before surgery begins (*Guide*, p 122) [*must*]

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had no comment.

> 5. Euthanasia
> - Procedures and training are in place to ensure death is confirmed (*Guide*, p 124) [*must*]

had no comment.

> 6. Drug Storage and Control
> - Program complies with federal regulations for human and veterinary drugs(*Guide*, p 115) [*must*]
> - Procedures are in place to ensure analgesics and anesthetics are used within expiration date (*Guide*, p 122) [*must*]

had no comment.

IV. Policies, guidelines, and SOPs reviewed by IACUC during past 6 months and update regarding new Policy and Standard format

informed the subcommittee that it took a few years but nearly every policy document has now been moved to the new University template. The Standards listed in the agenda are documents reviewed by the DCM veterinarians, and voted on by the IACUC to approve.

A. Reviewed by IACUC during the past 6 months (as of March 2019):
https://research.unc.edu/iacuc/
1. University Standard on Rat Cage Density
2. University Standard on Adoption of Companion Animals
3. University Standard for Animal Transport and Biosecurity
4. University Standard on Mouse Cage Density
5. University Standard on Tumor Burden in Rodents
6. University Standard for Documentation of Monthly Principal Investigator Check Sheet
7. University Standard for Satellite Facilities
8. University Standard for Monitoring Animals on Neuromuscular Blocking Agents (NMB)
9. University Standard for Rodent Survival Surgery
10. University Standard for Survival Surgeries for USDA Covered Species
11. University Standard for Reporting and Veterinary Care for Research Animals
12. University Standard for Animal Procedural Space Exception
13. University Standard for Satellite Facilities
14. University Standard for Rodent Identification
15. University Standard for Administered Agents

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16. University Standard for Post-Operative Analgesia

B. Reviewed by IACUC semi-annually – USDA-regulated species (as of March 2019):

informed the subcommittee that the Standards associated with USDA regulated species can be found at the link provided and the titles of the individual Standards are listed below and available for review.

http://research.unc.edu/offices/iacuc/policies-procedures/

1. University Policy on the Care and Use of Vertebrate Animals for Research, Training and Teaching Purposes
2. University Standard for Animal Monitoring Documentation and Recordkeeping
3. University Standard for Weight Loss in Research Animals
4. University Standard for the Assignment of Animals into Pain Categories
5. University Standard for Exercise and Socialization
6. University Standard for Isoflurane Euthanasia Drop Method
7. University Standard for Administered Agents
8. University Standard for Post-Operative Analgesia
9. University Standard for Anesthetic Vaporizers
10. University Standard for Environmental Enrichment Program for Research Animals
11. University Standard for the Use of Adjuvents in Research
12. University Standard for the Acclimation Period for Received Animals
13. University Standard for Social Housing of Research Animals (Terrestrial and Aquatic)
14. University Standard for Amendments and Other Protocol Changes
15. University Standard for Exceptions
16. University Standard for Animal Transport and Biosecurity
17. University Standard for Preparation Storage and Use of Tribromoethanol
18. University Standard for Survival Surgeries for USDA Covered Species
19. University Standard on Food and/or Water Restriction and/or Deprivation in Rats, Mice, Rabbits and Ferrets
20. University Standard for Documentation of Monthly Principal Investigator Check Sheet
21. University Standard for Adoption of Companion Animals
22. University Standard for Monitoring Animals on Neuromuscular Blocking Agents (NMB)
23. University Standard on Animal Procedural Space Exception – APSE
24. University Standard on Reporting and Veterinary Care for Research Animals
25. University Standard on Satellite Animal Facilities
26. Disaster Plan for UNC Satellite Facilities
27. Reporting Animal Welfare Concerns or Animal Protocol Non-Compliance
28. DCM Veterinarian Recommended Formularies and Regimens

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29. USDA Covered Species – Information for Investigators
30. Animal Biosafety Level 2 SOP
31. Environmental Enhancement Policy for Non-Human Primates
32. Guidelines for Use of Animal Core Facilities

C. Species Specific Environmental Enhancement Plans: reviewed and approved by the Environmental Enrichment Committee, and DCM Veterinarians prior to implementation. Included in Program Review PDF for review by IACUC semiannually.

explained to the subcommittee that at their monthly meetings the Enrichment Committee discusses the individual enrichment Standards. These enrichment items are reviewed by the DCM veterinarians and come to the IACUC as part of the Semiannual Program Review. The committee is made up of DCM staff, veterinarians, technicians, the Enrichment Specialist, the Training and Compliance Manager, and researcher staff is invited to participate as needed, particularly if representation for a particular species would be beneficial. The way these Standards relate to the overarching IACUC Standard was explained. As part of this discussion, advised the committee that the UNC Standard concerning record retention has been updated and is now in line with the federal guideline of 3 years. It was agreed this was good news for several reasons, including the reduction in space to be allocated for record storage in the future.

V. Performance Based Items and Guide Exceptions Reviewed by the IACUC

A. Ongoing performance based items:
    1. UNC Mouse Cage Density Policy - 15 + years
    2. Two- week cage change for individually ventilated small rodent cages
B. Guide Exceptions:
    1. Single housing of social animals – justification included in individual Animal Care and Use Application (ACAP)
    2. Housing of different animal species in a housing room – individually ventilated cages (mice/rats, rats/gerbils, guinea pigs/rats) and filter top caging (reptiles/amphibians), fish and amphibians.

explained the Performance Based Items and Guide Exceptions to the subcommittee. As an example, one of the investigators group is adding fish to their amphibian rooms. noted that in the facilities some guinea pigs and mice are housed in the same rooms, and there are situations where gerbils are housed in the same room as rats. The air in these locations is heap filtered, and there have been no issues identified to date.

VI. Division of Comparative Animal Medicine [DCM] Facilities and Management

A. General Space Update
    1. DCM Master Plan: HDR - Animal Facility Assessment and Consolidation
    2. Update on new construction and renovations
    3. PI Satellites

informed the subcommittee that the   is finishing up schematic design and the current plans are undergoing the last round of faculty review. They have met with the large animal users and are moving on to the mixed/exotic groups next. The building is expected to be completed in 2023. . A grant for $8 million has been submitted to the NIH, and could be competitive. Right now the industry is flush with projects, so contractors are raising costs which is combined with the effects of the tariffs. After a great deal of advance planning, the project is now over budget because of the market, not because of what is being included in the building. The continued growth from newly recruited PIs is adding pressure to the situation as well. There are ongoing renovations as well.   is expanding for large animal housing.   will temporarily accommodate surgery to facilitate the closing of .   Surgery will eventually move to the   Renovations on   will start in a couple of weeks, and the completion date is tentatively scheduled for late September. The   will relocate temporarily. .   is halfway done and should be completed by the first week of September. There will be   animals going to will close in September, and demolition should begin in October. Animals will be moving into   by early summer, coming from .   although the possibility of some delays is normal. There will be about 8,000 cages when relocation is complete. Work is ongoing to start a vivarium project in   and an MOU is being finalized to create an FTE position and set up a recharge for this. DCM has been funding the animals care, etc. Some programs do not have funding at all. The   is slated to begin in October and be completed in June or July of 2020.   asked when all of the renovations are complete, how much room there will be for rodents.   responded that with the renovations and the   , moving cage wash out will permit expansion for rodents allow for a diversification of species. Growth has been steady at 5-8% per year, and while rodents have plateaued, other species have expanded. Right now there are obstacles to some expansion, such as the limits in available sterile housing that the renovations and building projects will address. The .   renovation is getting underway with expected completion in August.

informed the subcommittee that of the six labs that are .   users, all but one are now fully under DCM oversight. The last lab is in process to transition. They have several   facilities with a fully trained DCM tech supporting the lab. The goal is to transition them to full DCM oversight by this summer. The lab seems to be happy about this change, and it means less paperwork for them. It was noted that there are plans to assess the .   containment spaces and build what is needed into the   if capacity allows.

updated the subcommittee on the canine enrichment program. The desire for dogs to spend more time outside of their primary enclosures involved renovations to   and expansions at   to improve socialization, outdoor pens to facilitate the effort and more staff time with dogs. The renovations are nearly complete.   has 2 new yards with shade structures and the 3 existing yards were renovated with permanent shade structures and fencing upgrades.   now has 4 new exercise yards with permanent shade structures for outdoor exercise.   Time outside has increased 50%. In addition to the yards, there is more interaction with staff outside of normal husbandry tasks. This social time is defined as positive, direct interaction between dog and staff and may take place either inside or outside the home enclosure. While direct social interaction was always happening, documentation of this time was implemented in October 2018. The USDA inspectors are always providing input to improve and enhance the program. Since the dog housing space exceeds the requirements in the Guide, time outside of housing is not required. However, these changes better address behavior improvements through meeting social needs. These dogs are not familiar with stranger. So, part of these changes are intended to acclimate

dogs to new people so this becomes normal for them and they are more resilient to changes in their environment. The program created staff that is doing this 100% of the time, using work study students and senior vet techs for training, by shifting duties and absorbing the cost for the betterment of the program.   commented that the monitoring is important to get a stronger sense of the effects of the changes. The dogs at   do not act like laboratory bred beagles, so the program is designed to accommodate the dogs we have. DCM is always trying to improve the program when financially possible while keeping the USDA recommendations in mind.   added that the renovations to   and   should get the program through until the :   is complete.

      B. Management structure
         1. Training of personnel
         2. Staff updates

' informed the subcommittee that DCM currently has 171 employees.   will be coming under DCM and providing funding for 3 husbandry FTEs. DCM is working with the OACU to create a Training AOD position. Over the last 2 years DCM has invested a lot in training DCM staff, but never had a quality assurance program to watch employees performing the animal work, and the OACU would see things that were not being done correctly. Now staff has been created to go over SOPs, etc., and observe performance every 6 months for all employees. By creating this AOD position, training can expand for both internal employees and researchers, including the possibility of research staff being able to consider AALAS training, and training can expand beyond rodents. There will be a significant amount of coordination between DCM and OACU as this goes forward.   added that if some researcher hands-on training goes to DCM, a long transition should be expected. The thought would be the hand-on training would become less in the OACU, but the   training and education in labs would become deeper, with the goal of decreasing ACRs and compliance issues.

    VII.   Grant Congruency

        A. Assessment of grant congruency, subcontracts/collaborations, IIAs

informed the subcommittee that the time from review to completion remains steady, with no change from the previous year and invited them to review the related graphs. Grant congruency reviews can be completed in 2 days if there are no items for the PI to address, 23-24 days if changes are needed to the protocol. The number of MOU's this period is down.   asked what portion of the 24 days is PI driven. stated the timeline can depend on the PI response with the amendment or if they don't answer their email. There can be concerns about too many reminder emails becoming burdensome, and there can be a fine line when it comes to when it is the PI's responsibility versus the OACU.   noted that this was a focus of the Research Excellence project.   confirmed this and stated 2 specific areas identified are the quality of protocols, whether they are incomplete or incorrect, and the response time from PIs and departments.   provided the committee with a chart describing the flow of the grant congruency review process.

    VIII.   IACUC-DCM Leadership Meeting Summaries

informed the subcommittee that the IACUC-DCM subcommittee meets in the week before the IACUC meeting to assess pertinent topics in an effort to reduce discussions at IACUC meetings. The committee was invited to review the list of topics reviewed at this meeting during the last 6 months. The Mouse Cage Density Standard was particularly time consuming.   informed the subcommittee that all animal users and DCM employees were being retrained on the updated Standard now as part of a series of large group assemblies. To date, only 9 PIs had not yet undergone training.

A. Amendment consultation when specific protocol changes are requested by a DCM veterinarian
B. Discussion of Mouse Cage Density Standard
C. Adoption documents and Standard
D. Carolina WISE updates
E. Mouse Breeding issues/pilot study
F. Issue of student caretakers in satellite facilities during Category 2 and 3 conditions
G. Designation of deficiencies during semiannual inspections
H. Discussion of Pain Category designation

X.   General Updates

informed the subcommittee of the status of an ongoing concern with a particular lab. There are several investigations that remain open. A recent meeting on the topic went well. 20 strains utilized by the lab will be moved under DCM Colony Management. These strains were managed by the   By moving this task to DCM, the .   will be free to provide oversight to the strains being used by others. The .   has expressed excitement about the new arrangement. At the moment, there is no need to bring in an .   with a broader skill set to manage the lab. All parties are hopeful this change will have positive results.   expressed that DCM would like the lab to go to a model where common strains are bred, characterized and distributed to each post-doc using that strain.   stated that it is important that these individuals know how to do the work as well, and it was noted that the PI raised this concern as well.   stated that there are plenty of models where the post-docs will have the opportunity to take the lead. It was asked if the .   would be supervising the people caring for the strains or just taking over, because there is concern the lab could end up right back where it was before.   indicated that once DCM starts working with this lab and they start doing QA they may realize where they have redundancy, which may lead to a centralized, coordinated structure. There was a problem with lack of communication in the lab. There are currently an estimated 60 strains being utilized. Each person in the lab has their own strain, there is interbreeding of complex strains and a variety of health statuses to contend with. It is clear there has not been enough standardized training in the lab.   indicated DCM may not know the lab's models, but the lab can train them, and DCM will support them as needed. Part of this will be to help facilitate conversations within the lab. .   asked what happens if things get out of control or genotyping gets behind.   stated how DCM can support them in these situations is still unclear, but they are starting the conversation.   agreed that this is a fluid situation, yet a good step forward in light of the number of issues that have come up. Ultimately, success will be evident in a reduced number of animal concerns.   commented that there has not been a problem with the .   cages, but freeing

up their time to oversee other aspects of the lab is expected to be a net positive. Students/post-docs will still be doing their own breeding and the educational benefit should remain in place.

A. NHP updates

informed the subcommittee that there are still two macaques on campus. They were moved to an investigator protocol in March. One has been used in an imaging protocol since October 2018. There is a 5-day imaging study planned for this animal soon. The animals are used off and on and currently supported by PI funds. The decision on whether to eventually transfer or retire the animals when there is no longer a need for them was discussed.   asked if the University wants to provide the funds to retire the animals. NHPs do not get funds from the NIH, and it is unclear what resources would be available to support this endeavor. Selling them is not ideal, as it would make UNC a vendor, and may create an unwanted situation.   noted that not just with NHPs, but when any animal is adopted out the cost is absorbed by UNC. Transport when giving away the animals is quite costly. There are places that have retirement facilities, but some are not above board and investigation would be necessary.   suggested the cost options be mapped out. As part of this conversation, it was discussed whether it was necessary to include this item as part of the program review if the animals are not being used.

B. IACUC membership

informed the subcommittee that 3 new IACUC members were recently added.

C. ACAP and OACU Administrative updates

informed the subcommittee of changes made to the animal care application, specifically in Section 1.2. A new Business Services Coordinator has been hired to the Administrative team in the OACU. The subcommittee was also advised that a recent server upgrade is creating formatting issues at the server level for ACAP. It is an unusual situation that could not have been predicted by IT, and they are working to resolve the problem as quickly as possible. Staffing shortages have put improvement projects on hold for now, but when the Administrative team is once again fully staffed, the OACU will begin rewriting the questions in ACAP for clarity.

D. Regulatory Burden updates

informed the subcommittee of ongoing efforts to reduce regulatory burden. The OACU continues to look for ideas on how to reduce overall burden while taking steps to move forward with this. One way has been to expand the number of new/continuation applications that are reviewed by DMR. This saves the committee time and can assist with getting comments to the PIs more quickly.   advised the subcommittee of the CUSP group and their national focus to unify standards to ensure consistency. Their collected library of SOP's could be used in the applications. It was agreed this could be a strong positive in reducing administrative burden.

E. Mouse Breeding/Cage Density issues

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informed the subcommittee that the IACUC and DCM have been working together to identify the problems underlying cage density and weaning issues to develop a solution that will make things easier for investigators while ensuring they assume appropriate responsibility for their breeding colonies. A subcommittee came up with what became a new card system that was tested. The pilot generated numbers supporting 23 days for the point of weaning instead of 10 grams. This will largely eliminate the need for DCM weighing and recording. As previously mentioned by .   nearly all labs have now been trained on the new Standard.

     F.   Carolina WISE updates

     G.   Homes for Animal Heroes/Adoption MOU

informed the subcommittee that an MOU has been written and DCM will now work with Homes for Animal Heroes on animal adoptions. One dog has been identified for adoption. It was suggested that this group be further encouraged by upper level administration to use the grant funding more efficiently by reducing the animal colony by adoption whenever possible. A reduction through adoption will also make the ongoing enrichment improvement efforts more effective.

     H.   Consideration, review, inspection of new non-DCM surgical space for regulated species

A new surgical space was inspected the previous day. It was requested that the PIs make some changes. An amendment is expected and a quick turnaround will be requested. Several procedures were evaluated by the DCM veterinarian. The group is not expected to need a formal exception for the space unless the USDA determines otherwise.

   XI. Supporting Documentation
       A. OLAW Semiannual Program Review Checklist
       B. Updated (April 2017) OLAW Assurance Statement
       C. OACU Outcomes Assessment Report (2017)

invited the subcommittee to review the associated documents.

   XII. Other
       A. Ensuring close coordination between IACUC/DCM and with those overseeing building renovations that affect Cores

       B. Requirements for subcontracts with foreign institutes to carry out animal work.

reminded the subcommittee that when a UNC investigator collaborates with a foreign institution, the IACUC expects the outside group to be AAALAC accredited. A request involving a subcontract with a non-AAALAC accredited institution is in process. Once the final paperwork and inspection reports are in hand, this will be brought to the IACUC for discussion.   advised the subcommittee that there is a great deal of scrutiny right now of foreign groups, with particular concern surrounding embargoed countries. The details can be very sensitive and export licenses may be required.

'asked the subcommittee if they felt there were any deficiencies with the program, major or minor. The group agreed unanimously that no issues were identified. Overall, the UNC animal care program is responsive and positive, staffed with individuals who genuinely care.   noted that there is good collaboration and integration across the groups.

The meeting closed at 9:52am.

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Wednesday, April 24, 2019 – 8:00 am IACUC Semi-annual Program Review Subcommittee Meeting

I.   Issues that were addressed in the previous review

    A. Carolina WISE updates
    B. Homes for Animal Heroes/Adoption MOU
    C. NHP updates
    D. IACUC membership
    E. Update on Dog exercise program and behaviorist visit
    F. ACAP and OACU Administrative updates
    G. Regulatory Burden updates
    H. Mouse Breeding/Cage Density issues

II. University Administration Updates – Institutional Official
    A. Overview of progress of Institutional support for animal care program
    B. Resources necessary to manage the animal care program and veterinary care are provided
    C. DCM and IACUC/OACU budgets

III. Abbreviated OLAW Semi-annual Program Review Checklist

    A. Institutional Polices and Responsibilities
        1. Animal Care and Use Program
- Responsibility for animal well-being is assumed by all members of the program (*Guide*, p 1) [*must*]
- Resources necessary to manage program of veterinary care are provided (*Guide*, p 14) [*must*]
- Responsibilities for daily animal care and facility management are assigned to specific individual(s) when a full-time veterinarian is not available on site (*Guide*, p 14) [*must*]

        2. Disaster Planning and Emergency Preparedness
- Disaster plans for each facility to include satellite locations are in place (*Guide*, p 35, p 75) [*must*]
- Plans include provisions for euthanasia (*Guide*, p 35) [*must*]

        3. IACUC
- Meets as necessary to fulfill responsibilities (*Guide*, p 25) [*must*]
- IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions (*Guide*, p 26) [*must*]

4. IACUC Protocol Review – Special Considerations
- Restraint devices are justified in the animal use protocols (*Guide*, p 29) [*must*]
- Veterinary care is provided if lesions or illness result from restraint (*Guide*, p 30) [*must*]
- USDA - requires that the IACUC conduct continuing reviews of activities...not less than annually." [PHS Policy requires a complete new review every 3 years utilizing all the criteria for initial review]
- USDA – requires that the principal investigator (PI) consider alternatives to procedures that cause more than momentary or slight pain or distress to the animals, and has provided a written narrative description of the methods and sources...used to determine that alternatives were not available."
- USDA – requires that the PI has provided written assurance that the activities do not unnecessarily duplicate previous experiments."
- USDA - procedures that may cause more than momentary or slight pain or distress to the animals will involve in their planning, consultation with the attending veterinarian or his or her designee; [PHS Policy does not specify veterinary consultation] and not include paralytics without the use of anesthesia
- USDA – requires that no animal will be used in more than one major operative procedure from which it is allowed to recover, unless justified for scientific reasons by the principal investigator, in writing..."

5. IACUC Membership and Functions
- Methods for reporting and investigating animal welfare concerns are in place (*Guide*, p 23) [*must*]
- Requests for exemptions from major survival surgical procedure restrictions are made to USDA/APHIS[i] (*Guide*, p 30) [*must*]
- Semiannual inspections [information is included in the PDF for member review]
  - i. DCM animal facilities and procedure rooms
  - ii. PI laboratories where surgical or painful procedures conducted, USDA-regulated species work conducted, or animals housed for > 12 hours (USDA regulated) or > 24 hours (non USDA-regulated)
  - iii. Satellite Facilities (PI maintained housing areas) – quarterly inspections [14]
  - iv. Animal Procedural Space Exceptions (APSE) –[4]

- Mouse breeding compliance

6. IACUC Training
   - IACUC member monthly training

7. IACUC Records and Reporting Requirements
   - Reports to Office of Laboratory Animal Welfare (OLAW)

     i. promptly advises OLAW of serious/ongoing *Guide* deviations or *PHS Policy* noncompliance
     ii. promptly advises OLAW of any suspension of activity by the IACUC - none
     iii. reports include any minority IACUC views – none
     iv. annual report with required information to OLAW documents program changes and dates of IACUC semiannual review

   - Reports to United States Department of Agriculture [USDA]
     i. "...each reporting facility shall submit an annual report to the APHIS, AC sector supervisor for the State where the facility is located on or before December 1 of each calendar year." [The USDA annual report has a list of requirements which differ from PHS annual report]
     ii. exceptions to standards and regulations must be specified and explained by the principal investigator, approved by the IACUC and attached to the facility's annual report.: Protocol(s) 17-094, 17-182, 18-047, 19-096
     iii. any failure to adhere to the plan and schedule that results in a significant deficiency remaining uncorrected shall be reported in writing within 15 business days by the IACUC, through the institutional official, to APHIS and any Federal agency funding that activity - none
     iv. reports of suspension of covered species activity by the IACUC to USDA and any Federal funding agency – none

8. Veterinary Care [Details will be discussed in next section –Veterinary Care]
   - Veterinary access to all animals is provided (*Guide*, p 14) [*must*]

- Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (*Guide*, p 14) [*must*]
- Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol (*Guide*, p 5) [*must*]
- Veterinarian provides consultation when interventional control is not possible (*Guide*, p 5) [*must*]
- Veterinarian(s) have experience and training in species used (*Guide*, p 15) [*must*]

9. Personnel Qualifications and Training
   - All personnel are adequately educated, trained, and/or qualified in basic principles of laboratory animal science. Personnel included: [*must*]
   - OACU Training
     i. one-on-one training
     ii. LAC training
     iii. mouse breeding training
     iv. mouse and rat handling and aseptic technique classes
     v. informational sessions and mandatory meetings

10. Occupational Health and Safety of Personnel
    - Program is in place and is consistent with federal, state, and local regulations (*Guide*, p 17) [*must*]
    - Considers confidentiality and other legal factors as required by federal, state and local regulations (*Guide*, p 22) [*must*]
    - If serum samples are collected, the purpose is consistent with federal and state laws (*Guide*, p 22) [*must*]

11. Personnel Security

12. Investigating & Reporting Animal Welfare Concerns
    - Methods for investigating and reporting animal welfare concerns are established (*Guide*, p 23) [*must*]
    - Reported concerns and corrective actions are documented (*Guide*, p 24)
    - Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (*Guide*, p 24)
    - Includes multiple contacts (*Guide*, p 24)
    - Includes anonymity, whistle blower policy, nondiscrimination and reprisal protection (*Guide*, p 24)
    - No facility employee, Committee member, or laboratory personnel shall be discriminated against or be subject to any reprisal for reporting violations of any regulation or

standards under the Act." [USDA requirement additional to PHS Policy]

- Animal Concern Reports and Trends

B. Veterinary Care
 1. Clinical Care and Management
- Veterinary program offers high quality of care and ethical standards (*Guide*, p 105) [*must*]
- Procedures established for timely reporting of animal injury, illness, or disease (*Guide*, p 114) [*must*]
- Procedures established for veterinary assessment, treatment, or euthanasia (*Guide*, p 114) [*must*]
- Veterinarian is authorized to treat, relieve pain, and/or euthanize (*Guide*, p 114) [*must*]

 2. Animal Procurement and Transportation/Preventative Medicine
- Procedures for lawful animal procurement are in place (*Guide*, p 106) [*must*]
- Procedures for compliance with animal transportation regulations, including international requirements, are in place (*Guide*, p 107) [*must*]

 3. Surgery
- Researchers have appropriate training to ensure good technique (*Guide*, p 115) [*must*]
- "...no animal will be used in more than one major operative procedure from which it is allowed to recover unless...(it is) justified for scientific reasons...(or is) required as routine veterinary procedure...or other special circumstances as determined by the Administrator on an individual basis." [additional USDA justification for multiple survival surgeries]

 4. Pain, Distress, Anesthesia and Analgesia
- Procedures are in place to assure antinoception before surgery begins (*Guide*, p 122) [*must*]

 5. Euthanasia
- Procedures and training are in place to ensure death is confirmed (*Guide*, p 124) [*must*]

 6. Drug Storage and Control
- Program complies with federal regulations for human and veterinary drugs(*Guide*, p 115) [*must*]
- Procedures are in place to ensure analgesics and anesthetics are used within expiration date (*Guide*, p 122) [*must*]

IV. Policies, guidelines, and SOPs reviewed by IACUC during past 6 months and update regarding new Policy and Standard format

    A. Reviewed by IACUC during the past 6 months (as of March 2019): https://research.unc.edu/iacuc/
1. University Standard on Rat Cage Density
2. University Standard on Adoption of Companion Animals
3. University Standard for Animal Transport and Biosecurity
4. University Standard on Mouse Cage Density
5. University Standard on Tumor Burden in Rodents
6. University Standard for Documentation of Monthly Principal Investigator Check Sheet
7. University Standard for Satellite Facilities
8. University Standard for Monitoring Animals on Neuromuscular Blocking Agents (NMB)
9. University Standard for Rodent Survival Surgery
10. University Standard for Survival Surgeries for USDA Covered Species
11. University Standard for Reporting and Veterinary Care for Research Animals
12. University Standard for Animal Procedural Space Exception
13. University Standard for Satellite Facilities
14. University Standard for Rodent Identification
15. University Standard for Administered Agents
16. University Standard for Post-Operative Analgesia

    B. Reviewed by IACUC semi-annually – USDA-regulated species (as of March 2019): http://research.unc.edu/offices/iacuc/policies-procedures/
1. University Policy on the Care and Use of Vertebrate Animals for Research, Training and Teaching Purposes
2. University Standard for Animal Monitoring Documentation and Recordkeeping
3. University Standard for Weight Loss in Research Animals
4. University Standard for the Assignment of Animals into Pain Categories
5. University Standard for Exercise and Socialization
6. University Standard for Isoflurane Euthanasia Drop Method
7. University Standard for Administered Agents
8. University Standard for Post-Operative Analgesia
9. University Standard for Anesthetic Vaporizers
10. University Standard for Environmental Enrichment Program for Research Animals
11. University Standard for the Use of Adjuvents in Research
12. University Standard for the Acclimation Period for Received Animals
13. University Standard for Social Housing of Research Animals (Terrestrial and Aquatic)

14. University Standard for Amendments and Other Protocol Changes
15. University Standard for Exceptions
16. University Standard for Animal Transport and Biosecurity
17. University Standard for Preparation Storage and Use of Tribromoethanol
18. University Standard for Survival Surgeries for USDA Covered Species
19. University Standard on Food and/or Water Restriction and/or Deprivation in Rats, Mice, Rabbits and Ferrets
20. University Standard for Documentation of Monthly Principal Investigator Check Sheet
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A. General Space Update

          1. DCM Master Plan: HDR - Animal Facility Assessment and Consolidation
          2. Update on new construction and renovations
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    A. Assessment of grant congruency, subcontracts/collaborations, IIAs

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    A. NHP updates
    B. IACUC membership
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    A. Ensuring close coordination between IACUC/DCM and with those overseeing building renovations that affect Cores
    B. Requirements for subcontracts with foreign institutes to carry out animal work.

###

Overview of Issues Addressed in Previous Review

University Administration Updates

OLAW Semi-Annual
Program Review Checklist

Institutional Policies and Responsibilities

JANUARY

Thursday, January 10th: 2:30pm-4:30pm   *Meet in the*   *at 2:20pm*

Primary inspector:
Secondary Inspector:
Back-up Inspector:

DCM REPRESENTATIVE:

EHS REPRESENTATIVE:

DCM VETERINARIAN:

2 IACUC MEMBERS:

Thursday, January 17th: 2:30pm-4:30pm   *Meet in the*   *at 2:20pm*

   Reserve 1 DCM vehicle (Dodge Journey reserved 12-4pm)
CONTACT – ALL   labs to get on same   schedule during   inspection if possible:

Primary inspector:
Secondary Inspector:
Back-up Inspector:

DCM REPRESENTATIVE:

EHS REPRESENTATIVE:

DCM VETERINARIAN:

2 IACUC MEMBERS:

Thursday, January 31st: 2:30pm - 4:30pm   *Meet at the back loading dock of   at 2:20pm*

USDA veterinary records
- including water dep. and head cap cleaning records

                                                                        - ask for sx records
for each
        If PI is active w/ USDA species, then set up inspection. If DCM does all USDA animal work, then no inspection with PI, only need to review as part of USDA vet records review in DCM   )

Primary inspector:
Secondary Inspector:
Back-up Inspector:

DCM REPRESENTATIVE:

EHS REPRESENTATIVE:

DCM VETERINARIAN:

4 IACUC MEMBERS:

          ***   ***   ***   ***

FEBRUARY

Tuesday, February 5th: 2:30pm-4:30pm   *Meet in the   at 2:20pm*

Primary inspector:
Secondary Inspector:
Back-up Inspector:

DCM REPRESENTATIVE:

EHS REPRESENTATIVE:

DCM VETERINARIAN:

2 IACUC MEMBERS:

Thursday, February 14th: 2:30pm-4:30pm   *Meet in the   at 2:20pm*

          DCM vehicle(s) –   please arrange for vehicles to be present if possible
(Contact   for escort into 35 suite-not USDA)

Primary inspector:
Secondary Inspector:

Back-up Inspector:

DCM REPRESENTATIVE:
EHS REPRESENTATIVE:
DCM VETERINARIAN:
7 IACUC MEMBERS:

Tuesday, February 19th: 2:30pm-4:30pm   *Meet in the   at 2:20pm*

Primary inspector:
Secondary Inspector:

Back-up Inspector:

DCM REPRESENTATIVE:
EHS REPRESENTATIVE:
DCM VETERINARIAN:
4 IACUC MEMBERS:

Wednesday, February 27th: 10:00am – 11:30am   *Meet in the*

r Space – to be scheduled with
(must be cleared to enter   to participate in this inspection)
1.5 hours, anytime in Feb 2018
IACUC Members:

Wednesday, February 27th: 2:30pm – 4:30pm   *Meet in the*   *at 2:20pm*

Primary inspector:
Secondary Inspector:
Back-up Inspector:

DCM REPRESENTATIVE:

EHS REPRESENTATIVE:

DCM VETERINARIAN:

2 IACUC MEMBERS:

   ***   ***   ***   ***

MARCH

BUILDING NOT OPEN AT TIME OF INSPECTION---NO INSPECTION
Thursday, March 7th: 1:00-3:00pm   *Meet in the*   *at 12:50pm*

Enrichment Documentation- setup to meet in   w/ IACUC members – schedule with   Mgr.
Last reviewed 7/18, so review all   records for 8/18-3/19

Primary inspector:
Secondary Inspector: to schedule record review
Back-up Inspector:

DCM REPRESENTATIVE:

EHS REPRESENTATIVE:

DCM VETERINARIAN:

1 IACUC MEMBER:

Wednesday, March 13th: 2:30pm – 4:30pm   *Meet in the   at 2:20pm*

[Contact   lab for escort into 35 suite-not USDA; contact EHS for **access to   radiator (**   *Contact   a week before and re-confirm date/time day before* Plan room order with /   to include irradiator.

Primary inspector:
Secondary Inspector:
Back-up Inspector:

DCM REPRESENTATIVE:

EHS REPRESENTATIVE:

DCM VETERINARIAN:

2 IACUC MEMBERS:

Thursday, March 21st: 1:00-4:00pm- **reserve 2 DCM vehicles (Dodge Journey reserved 12-4pm)**

Meet in the   at 12:50pm; if you will meet us at   , please contact one of the inspectors

Primary inspector:
Secondary Inspector:
Back-up Inspector:

DCM REPRESENTATIVE:

EHS REPRESENTATIVE:

DCM VETERINARIAN:

2 IACUC MEMBERS:

March 2019 if needed: at least 8:00 – 5:00pm

- Inspector contact   labs to determine if animals in house anytime in the last 6 months. If yes, schedule inspection to coincide. If no, ask when field collection/surgery scheduled and try to schedule to coincide. If in-person inspection not required, collect records for last 6 month housing (if satellite was active).

Primary inspector:

DCM VETERINARIAN:

1 IACUC MEMBER:

Wednesday, March 27th: 2:30pm – 4:30pm   *Meet in the*   *at 2:20pm*

[Schedule inspection of   **behavior spaces if running experiments during inspection; lab does not need to be present]**

(DCM space only)

Primary inspector:
Secondary Inspector:
Back-up Inspector:

DCM REPRESENTATIVE:

EHS REPRESENTATIVE:

DCM VETERINARIAN:

2 IACUC MEMBERS:

***   ***   ***   ***

APRIL

Space – to be scheduled with   (must be cleared to enter   to participate in this inspection)

1.5 hours, anytime in April 2018

IACUC Members: _____ + _____

w/ USDA, req. <u>2 IACUC members</u> –   **Space** – to be scheduled with   ,

(must be cleared to enter   to participate in this inspection)

1.5 hours, anytime in April 2018

IACUC Members: _____ + _____

Thursday, April 4th: 2:30pm – 4:30pm   *Meet in the   at 2:20pm*

1. **Contact labs as needed if they have not responded to   e-mails**
    ᐧ lab inspection needed, ˈ ᐧ – ask to review all USDA covered species records–if applicable).
2. **Contact EHS for access to   irradiator (procedure room)**
    Contact   a week before and re-confirm date/time day before
3. ***Speak to   about where Procedure rooms and   irradiator fall on room order.***
    As of 3/18,   after ᐧ, and procedure rooms after

Note: there is also an imaging machine in one   procedure room. It is separate from the irradiator and DCM employees have access.

Primary inspector:
Secondary Inspector:
Back-up Inspector:

DCM REPRESENTATIVE(S):

EHS REPRESENTATIVE:

DCM VETERINARIAN:

3 IACUC MEMBERS:

***   ***   ***   ***

Facility_Name: **Inspection_Date:**   **3/21/2019**

Comments	Corrected
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70%. No animal health issues related to these changes were reported, as all cages are individually ventilated. Facility management is working to correct issues as soon as they are identified.	4/2/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Inspectors noticed that documentation for multiple duties was not provided in the husbandry logs for cage wash. The facility manager and informed the inspectors that some duties had been missed due to staffing being extremely shorthanded. Duties missed were ones that did not compromise animal welfare in any way.	4/2/2019

Facility_Name: **Inspection_Date:**   **1/31/2019**

Comments	Corrected
PI Name: -- IACUC ID: 17-154.0 -- Room Number: ' -- Severity: N Two cages with temporary cage cards were identified. This is a quarantine room for incoming animals, the building supervisor will request cards for the cages.	2/19/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70%. No animal health issues related to these changes were reported, as all cages are individually ventilated. Facility management is working to correct issues as soon as they are identified.	2/14/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Inspectors noted a missing ceiling panel. A workorder was placed with facilities on 01/07/19, for this repair.	2/14/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: M According to the husbandry log, quarterly and bi-annual room and rack disinfection for this space were due but not performed in the month of December, 2018.	2/14/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: M Inspectors observed a missing daily p.m. check for animals on December 14, 2018 in the husbandry logs.	2/14/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Inspectors request the degowning procedures for be updated/added to signage both inside and outside the room as need	2/14/2019
PI Name:) -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N The recertification sticker for the slim line in this room shows 08/2018 as the due date. Please replace the sticker with the current due date or have the machine recertified.	2/14/2019
PI Name: -- IACUC ID: 17-257.0 -- Room Number: -- Severity: N Five cages with temporary cage cards were identified on rack If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested.	2/7/2019
PI Name: -- IACUC ID: 18-310.0 -- Room Number: -- Severity: N Three cages with temporary cage cards were identified on rack and one cage on rack ' If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested.	2/11/2019
PI Name: -- IACUC ID: 18-061.0 -- Room Number: -- Severity: M Inspectors noted monthly water quality checks were not documented/performed during November and December 2018.	2/14/2019
PI Name: -- IACUC ID: 18-061.0 -- Room Number: -- Severity: M Inspectors noted that the monthly environmental log column was not completed by the lab as required on the DCM husbandry logs.	2/14/2019
PI Name: -- IACUC ID: 18-061.0 -- Room Number: -- Severity: M Inspectors noted excessive build-up of salt on cages and racks throughout the room. Sanitation of these areas should be completed on a regular basis to prevent this excessive build-up.	2/14/2019

Facility_Name: **Inspection_Date:**   **1/31/2019**

Comments	Corrected
PI Name: -- IACUC ID: 18-061.0 -- Room Number: -- Severity: M Inspectors noted monthly water quality checks were not documented/performed during November and December 2018.	2/14/2019
PI Name: -- IACUC ID: 18-061.0 -- Room Number: -- Severity: M Inspectors noted that the monthly environmental log column was not completed by the lab in December 2018 as required on the DCM husbandry logs.	2/14/2019
PI Name: -- IACUC ID: 18-061.0 -- Room Number: -- Severity: M EHS inspector noted the shrimp brine tank has a leak which should be addressed as soon as possible.	2/14/2019
PI Name: -- IACUC ID: 18-061.0 -- Room Number: -- Severity: M Inspectors noted that the monthly environmental log column was not completed by the lab in December 2018 as required on the DCM husbandry logs.	2/14/2019
PI Name: -- IACUC ID: 18-061.0 -- Room Number: -- Severity: M Inspectors noted that the monthly environmental log column was not completed by the lab in December 2018 as required on the DCM husbandry logs.	2/14/2019
PI Name: -- IACUC ID: 18-061.0 -- Room Number: -- Severity: M Inspectors noted that the monthly environmental log column was not completed by the lab in September, October and December 2018 as required on the DCM husbandry logs.	2/14/2019

Facility_Name: I   **Inspection_Date:**   **2/27/2019**

Comments	Corrected
PI Name: ⸺ -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Please update the Needle Safety posting in all lab spaces. Copies have been provided in campus mailbox.	3/14/2019
PI Name: ⸺ -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N A sharps container is full and must be discarded. Sharps containers must be discarded and replaced when the contents have reached the fill line.	3/14/2019
PI Name: ⸺ -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70% and temperatures outside the typical range. No animal health issues related to these changes were reported. Facility management is working to correct issues as soon as they are identified.	3/14/2019
PI Name: ⸺ -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N This is the 1st semiannual facility inspection report for the ⸺ space - formerly the ⸺ Satellite, now under DCM management.	3/14/2019

Facility_Name: **Inspection_Date:**   **1/17/2019**

Comments	Corrected
PI Name: -- IACUC ID: 17-166.0 -- Room Number: -- Severity: N Hard copy protocol for 14-216 should be removed from the husbandry notebooks for these 2 rooms and replaced with the version for the currently approved protocol 17-166- if applicable/necessary.	2/6/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70% and temperatures outside the acceptable range of 68-79 degrees F. No animal health issues related to these changes were reported. Facility management is working to correct issues as soon as they are identified.	1/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Inspectors identified a sensor without a cover on the wall in this space. The EHS representative indicated that the sensor should be covered or removed if no longer in use.	1/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: M A mouse cage sitting on top of a barrel of cleaner was being used for secondary storage of a clear liquid, without a label. All secondary containers must indicate contents.	1/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: M The eyewash was blocked by a barrel of cleaner, thus not allowing for activation of the handle in its current position.	1/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N The electrical outlet has a broken cover that must be replaced.	1/25/2019

Facility_Name: **Inspection_Date:**   **2/27/2019**

Comments	Corrected
PI Name: -- IACUC ID: 18-314.0 -- Room Number: -- Severity: N A cage was observed without the required cage card information, weaned in early February, 2019. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested. Another card, 16-251, same room, was separated in January, also did not have an RFID card.	3/20/2019
PI Name: -- IACUC ID: 16-249.0 -- Room Number: -- Severity: N Please be aware that RFID cards which are not being used must be stored in a closed metal container/box to ensure the unused cards are not accidentally scanned causing the PI to be charged unnecessarily. Contact your DCM facility supervisor for more information.	3/20/2019
PI Name: -- IACUC ID: 16-249.0 -- Room Number: -- Severity: N Feed that had been moistened and placed in a small plastic bag was found within the PI box in this room. All feed should be labeled with the expiration or mill date at all times. Feed is considered expired 6 months after the mill date. Moistened feed should be discarded in a timely manner to prevent spoilage.	3/20/2019
PI Name:) -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70%. No animal health issues related to these changes were reported, as all cages are individually ventilated. Facility management is working to correct issues as soon as they are identified.	3/20/2019
PI Name: -- IACUC ID: 16-024.0 -- Room Number: -- Severity: N A cage was observed without the required cage card information. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested.	3/20/2019
PI Name: -- IACUC ID: 19-012.0 -- Room Number: -- Severity: N Please be aware that RFID cards which are not being used must be stored in a closed metal container/box to ensure the unused cards are not accidentally scanned causing the PI to be charged unnecessarily. Contact your DCM facility supervisor for more information.	3/20/2019

Facility_Name: **Inspection_Date:**   **3/21/2019**

Comments	Corrected
PI Name: ı -- IACUC ID: 00-000.0 -- Room Number: - Severity: A Inspectors (including at least two IACUC members) conducted a semiannual records review of Enrichment Documentation maintained by DCM veterinary staff, on 03/07/2019. This review covers records maintained by DCM Vet Services for enrichment provided to USDA covered species.	3/29/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: ı -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70% and temperatures outside the acceptable range of 68-79 degrees F. No animal health issues related to these changes were reported.	3/29/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: M Inspectors noticed that the weekly drain pit flush was not performed one week in February 2019 according to the husbandry logs. The facility manager had conducted the weekly signoff for these months, however no notation was made for missed duties.	3/29/2019
PI Name: -- IACUC ID: 17-087.0 -- Room Number: ı ı -- Severity: M Inspectors noticed that the afternoon "Check Animals" and "Refill Water/Feed" duties for March 17 and March 18, 2019 were not documented in the animal room.	3/29/2019

Facility_Name:	**Inspection_Date:** **2/14/2019**

Comments	Corrected
PI Name: -- IACUC ID: 16-015.0 -- Room Number: -- Severity: M Inspectors noted cage cards with the expired protocol numbers (16-015 & 15-182) on multiple cages on rack . The PI must identify all cages with the current protocol number (18-327 & 18-137).	3/4/2019
PI Name: -- IACUC ID: 18-109.0 -- Room Number: -- Severity: M The check sheet for Duties Performed by Investigator (for 18-109) was found to be incomplete. The sheet indicated the water duty was ongoing, however documentation was only provided through 02/03/19. Documentation that water is observed is required with a maximum of two consecutive days between observations and for the entire duration written on the sheet.	3/1/2019
PI Name: -- IACUC ID: 17-285.0 -- Room Number: -- Severity: M Inspectors identified an unlabeled bag of sunflower seeds being stored in a locker. All feed must be clearly labeled with the contents within and an accurate expiration date. Feed is considered expired on the expiration date.	3/11/2019
PI Name: -- IACUC ID: 17-285.0 -- Room Number: -- Severity: N A cage on rack was identified with a temporary cage card was identified. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested.	3/11/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: - Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70%. No animal health issues related to these changes were reported, as all cages are individually ventilated. Facility management is working to correct issues as soon as they are identified.	3/11/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: - Severity: M Inspectors noted a jug within the necropsy cooler with clear liquid. The PI's name, contents of the liquid written as "NTBC" and "PI will water" tape, were on the jug. The full name for the contents within secondary containers must be written clearly on the container. Per , the for the building, the container was placed in the cooler by DCM and it was their responsibility to properly identify the contents within.	3/11/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Inspectors noted a supply vent, located on the wall to the left of the lockers, with an accumulation of dust. This excess dust should be removed reguarly.	3/11/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Inspectors noted that some low humidity values were not documented with the required asterisk "*" as per the DCM husbandry log legend, in the months of December 2018 and January 2019.	3/11/2019
PI Name: -- IACUC ID: 18-199.0 -- Room Number: -- Severity: M Expired hydrogel was identified in the lab's locker. All chemicals and supplies maintained in the animal care and housing areas must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals. Inspectors discarded the containers.	3/11/2019

Comments	Corrected
PI Name: -- IACUC ID: 15-306.0 -- Room Number: -- Severity: N Inspectors noted a cage card with the expired protocol number. The PI must identify all cages with the current protocol number (18-199).	3/11/2019
PI Name: -- IACUC ID: 16-216.0 -- Room Number: -- Severity: M EHS inspector identified an improperly labeled formaldehyde waste container on the counter and a glass bottle labeled "Waste", containing clear liquid, underneath the counter in a plastic bin. UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.	4/4/2019
PI Name: - IACUC ID: 16-216.0 -- Room Number: -- Severity: M Inspectors noted Vimoba with an expiration date 02/04/2019 stored within the room. All chemicals and supplies maintained in the animal facility must be labeled with the expiration date and discarded appropriately.	4/4/2019
PI Name: -- IACUC ID: 16-071.0 -- Room Number: -- Severity: N Inspectors observed a plastic bag with potentially ground feed within it, stored within the cage card box. An expiration date was present, however the inspectors felt the contents of the bag should also be indicated.	4/4/2019
PI Name: -- IACUC ID: 15-089.0 -- Room Number: -- Severity: M Inspectors noted cage cards with the expired protocol number on two cages on rack The PI must identify all cages with the current protocol number (18-034).	2/25/2019
PI Name: -- IACUC ID: 15-294.0 -- Room Number: I -- Severity: M Inspectors noted cage cards with the expired protocol number on multiple cages on rack . The PI must identify all cages with the current protocol number (18-212).	3/14/2019
PI Name: -- IACUC ID: 18-072.0 -- Room Number: -- Severity: M A cage was observed with a temporary cage cards on rack after being separated 11/29/19 by DCM. Please order a DCM RFID card for this cage.	3/14/2019
PI Name: -- IACUC ID: 15-150.0 -- Room Number: -- Severity: M Inspectors noted cage cards with the expired protocol number on multiple cages on rack . The PI must identify all cages with the current protocol number (18-072).	3/14/2019
PI Name: -- IACUC ID: 18-010.0 -- Room Number: -- Severity: M The check sheet for Duties Performed by Investigator was found to be incomplete. Documentation that feed was observed is required with a maximum of two consecutive days between observations and for the entire duration written on the sheet including weekends and holidays. The sheet indicated feed would be checked from 2/11 - 4/11 but documentation was only present for 02/01/19.	2/21/2019
PI Name: -- IACUC ID: 15-178.0 -- Room Number: -- Severity: M Inspectors noted 4 cage cards with the expired protocol number on multiple cages on rack . The PI must identify all cages with the current protocol number.	3/25/2019

Facility_Name: **Inspection_Date:**   **2/14/2019**

Comments	Corrected
PI Name: -- IACUC ID: 15-178.0 -- Room Number: -- Severity: M One cage was observed with temporatry card on rack after being separated 1/10/19 and 2 cages were found on rack with temporary cards from 12/12/18. RFID cards should be ordered and placed as soon as possible.	3/25/2019
PI Name: -- IACUC ID: 17-041.0 -- Room Number: -- Severity: M Two cages were observed with temporary cage cards on rack after being separated 12/29/18 by DCM. Please order a DCM RFID card for this cage.	3/6/2019
PI Name: -- IACUC ID: 18-081.0 -- Room Number: -- Severity: N Two cages with temporary cage cards were identified on racks . If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested.	3/6/2019
PI Name: -- IACUC ID: 16-316.0 -- Room Number: -- Severity: M Several cages were observed with missing cage cards. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested. RFID cards should be ordered and placed as soon as possible.	3/18/2019
PI Name: -- IACUC ID: 17-167.0 -- Room Number: -- Severity: M Inspectors found surgery logs for animals within the animal room unclear as to the PI and protocol number and the year performed. Please ensure surgical logs are legible and clearly state PI name, protocol number, the date performed and any other pertinent information.	3/6/2019
PI Name: -- IACUC ID: 18-266.0 -- Room Number: -- Severity: M Three cages with temporary cage cards were identified on rack If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested.	2/27/2019
PI Name: -- IACUC ID: 18-020.0 -- Room Number: -- Severity: M Inspectors identified eye lubricant with a past expiration date in the the lab supply container found in the procedure room. All chemicals and supplies maintained in the animal care and housing areas must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals. The puralube was disposed of by inspectors.	2/27/2019
PI Name: -- IACUC ID: 18-020.0 -- Room Number: -- Severity: M Five cages, on rack were observed with temporary cage cards after being separated 01/27/19. RFID cards should be ordered and placed as soon as possible.	2/27/2019
PI Name: -- IACUC ID: 16-131.0 -- Room Number: -- Severity: M A cage was observed within the cubicle without a DCM RFID card or a temporary cage card. Only a purple investigator health observation card was seen. If a RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested.	2/21/2019
PI Name: -- IACUC ID: 15-108.0 -- Room Number: -- Severity: M Inspectors noted cage cards with the expired protocol number on multiple cages on rack . The PI must identify all cages with the current protocol number (18-065).	2/27/2019
PI Name: -- IACUC ID: 17-301.0 -- Room Number: -- Severity: M A cage was observed with only a temporary cage card after being separated 11/2018 by DCM. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested. RFID cards should be ordered and placed as soon as possible.	3/13/2019

Facility_Name: **Inspection_Date:**   **2/14/2019**

Comments	Corrected
PI Name: -- IACUC ID: 17-005.0 -- Room Number: -- Severity: N A cage on rack was identified with a temporary cage card was identified. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested.	3/6/2019
PI Name: -- IACUC ID: 16-058.0 -- Room Number: -- Severity: M Inspectors noted expired Betadine and Estradiol pellets in the hood during a survival surgery that was ongoing during the inspection. All chemicals and supplies maintained in the animal care and housing areas must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals. Inspectors also noted the lab members performing survival surgery in non-sterile conditions. Please review the IACUC 'Rodent Survival Surgeries' standard operating procedure at the link below and modify the aseptic techniques followed by lab members accordingly. A procedural observation will be required during the next IACUC inspection (March 2019) https://research.unc.edu/files/2012/11/Guidelines-for-Aseptic-Technique-for-Rodent-Survival-Surgeries.pdf	2/21/2019

Facility_Name: **Inspection_Date:**   **3/13/2019**

Comments	Corrected
PI Name: -- IACUC ID: 12-039.0 -- Room Number: -- Severity: N Expired Exception for 12-039 should be removed from the husbandry notebook and replaced with the version for the currently approved protocol- if applicable.	3/20/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70%. No animal health issues related to these changes were reported, as all cages are individually ventilated. Facility management is working to correct issues as soon as they are identified.	3/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Inspectors noticed mismarks in the husbandry logs for multiple rooms. The facility manager had noted these during weekly supervisor signoff.	3/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: M Inspectors identified feed being stored in the feed cooler 6 months past it's mill date (06/24/18). Feed is considered expired 6 months after the mill date or if provided, on the expiration date.	3/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: M Inspectors noticed that weekly vent cleaning duties were not completed once in January 2019 and once in February 2019 according to the husbandry logs. The facility manager had conducted the weekly signoff for these missed weeks and did notate the duties were missed.	3/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: Procedure Room -- Severity: N signage within the procedure room should be updated to reflect as the contact. Currently is listed on the signage.	3/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: M According to the husbandry log, feed bin disinfection for this space was not documented in the month of December, 2018. According to the husbandry log, monthly slim line and room sanitation for this space was not documented in the month of January, 2019.	3/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Inspectors observed mop head stored in the mop bucket. Mops should be hung from the wall to allow the mop head to properly dry.	3/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: M According to the husbandry log, cage wire disinfection was performed twice within the month of January, 2019. However, this duty was performed twice that month, with only a week apart, not biweekly as required. According to the husbandry log, slim line and cage wire lids disinfection was not documented in the month of December, 2018.	3/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: Suite -- Severity: M According to the husbandry log for the biweekly slimline and monthly door jambs duties were not documented.	3/25/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N The veterinarian recommended swithching the cubicle from negative to postive air flow.	3/25/2019

Facility_Name: **Inspection_Date:**   **3/13/2019**

Comments	Corrected
PI Name: -- IACUC ID: 16-109.0 -- Room Number: -- Severity: N Inspectors noted that the upper right corner of the PI Feed and Water Check Sheet was not completed. Please ensure that the duty/duties being performed by research staff is/are indicated in this area.	3/20/2019
PI Name: -- IACUC ID: 16-109.0 -- Room Number: -- Severity: N Inspectors requested that if any I agents are utilized, that cages are marked with Biohazard cards.	3/20/2019
PI Name: -- IACUC ID: 13-088.0 -- Room Number: -- Severity: M Inspectors noted Expired 'Conflict' (dated 8/2016) that must be discarded and replaced (if still needed). Expired products may not be utilized within animal care and use areas.	4/2/2019
PI Name: -- IACUC ID: 13-088.0 -- Room Number: -- Severity: N Expired biohazard sheets for 13-088 and 14-100 should be removed from the husbandry notebook.	4/2/2019
PI Name: -- IACUC ID: 16-073.0 -- Room Number: I -- Severity: M Inspectors identified an unlabeled bag of high fat feed being stored in the lab locker without an expiration date. All feed must be clearly labeled with an accurate expiration or milling date. Feed is considered expired 6 months after the mill date or if provided, on the expiration date.	4/2/2019
PI Name: -- IACUC ID: 16-003.0 -- Room Number: -- Severity: N Expired Exceptions for 16-003 & 15-026 should be removed from the husbandry notebook and replaced with the versions for the currently approved protocols- if applicable.	3/20/2019
PI Name: I -- IACUC ID: 16-003.0 -- Room Number: -- Severity: N Expired Exception for 16-003 should be removed from the husbandry notebook and replaced with the version for the currently approved protocol- if applicable.	3/20/2019

Comments	Corrected
PI Name: ⌐ -- IACUC ID: 18-153.0 -- Room Number: -- Severity: N Inspectors noted that documentation for a monthly check of the eye wash in the area maintained by this PI has not been provided consistently. The space has been utilized by the lab according to this document, the room duty log located on the door, however, the eyewash has not been documented.	1/28/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70%. No animal health issues related to these changes were reported, as all cages are individually ventilated. Facility management is working to correct issues as soon as they are identified.	1/15/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N If certain husbandry duties are not required for a certain space, please ensure those lines on the husbandry log sheet are consistently and clearly marked with N/A or some other indication, rather than left blank. Inspectors noticed that documentation for various duties not required for the room were not consistently marked 'N/A' over serveral months. The retrained the technician during the inspection.	1/15/2019
PI Name: -- IACUC ID: 17-003.0 -- Room Number: -- Severity: M Multiple cages on rack were observed without the required cage card information. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and should have the date in which the cage card was requested. One temporary card did have a cage card request date listed as 11/17/18, almost two months ago. RFID cards should be ordered and placed as soon as possible.	1/22/2019
PI Name: -- IACUC ID: 17-032.0 -- Room Number: -- Severity: M A purple card used for monitoring was found on cage : . The card stated daily monitoring was to be performed on mouse/mice. Documentation on the card shows a daily check was performed once on Friday, 01/04/19 and DCM euthanized on Tuesday, 01/08/19. There was no monitoring documentation listed on the card for the period of 01/05/19 through 01/07/19.	1/22/2019

Facility_Name: **Inspection_Date:**   **2/5/2019**

Comments	Corrected
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70%. No animal health issues related to these changes were reported, as all cages are individually ventilated. Facility management is working to correct issues as soon as they are identified.	2/8/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: M Inspectors observed an entry missing for sump pump strainer cleanout on 11/13/18.	2/8/2019
PI Name: (-- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Inspectors noted that documentation for the eye wash station weekly flush was not completed on the card located at the eyewash for one week. It was documented on the room log. The new employee was immediately retrained to include documentation for each flush in both locations.	2/8/2019
PI Name: -- IACUC ID: 18-315.0 -- Room Number: -- Severity: M Inspectors found a box containing several expired medical products within this PI maintained procedure room. All chemicals and supplies maintained in the animal care and housing areas must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals.	2/14/2019
PI Name: -- IACUC ID: 18-315.0 -- Room Number: ' -- Severity: M 'Cap'n Crunch' was located in the PI procedure room, with an expiration date of 12/10. Additional cereal was located in a cabinet in this room, without an expiration date. All feed/treats must be clearly labeled with an accurate expiration or milling date. Feed is considered expired 6 months after the mill date or if provided, on the expiration date.	2/14/2019
PI Name: -- IACUC ID: 18-315.0 -- Room Number: -- Severity: M The sharps container in the procedure room is full and must be discarded. Sharps containers must be discarded and replaced when the contents have reached the fill line.	2/14/2019
PI Name: -- IACUC ID: 18-315.0 -- Room Number: -- Severity: M According to the room maintenance log, in this PI maintained procedure room, quarterly duties (including wall, ceiling, light fixture cleaning) were not performed in the last 12 months.	2/14/2019
PI Name: -- IACUC ID: 18-315.0 -- Room Number: ' -- Severity: N Inspectors noted a bottle labeled 'bleach 0.25%' with a date of 1/29/19. Please indicate whether this is an expiration date or fill date.	2/14/2019

Comments	Corrected
PI Name: -- IACUC ID: 18-029.0 -- Room Number: -- Severity: N Please ensure that pink post procedure cards are filled out completely, including number of times per day, and number of days (according to the protocol). Some labs chose to modify a pink card, make copies, and laminate for quicker completion on surgery days.	3/7/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70%. No animal health issues related to these changes were reported, as all cages are individually ventilated. Facility management is working to correct issues as soon as they are identified.	3/20/2019
PI Name: -- IACUC ID: 17-008.0 -- Room Number: -- Severity: N Special feed maintained by the lab in the cubical space expired on the day of the inspection. The feed is not currently in use. Please discard this feed immediately and never use expired feed.	3/20/2019
PI Name: -- IACUC ID: 18-183.0 -- Room Number: -- Severity: N Please ensure that pink post procedure cards are filled out completely, including number of times per day, and number of days (according to the protocol). Some labs chose to modify a pink card, make copies, and laminate for quicker completion on surgery days.	3/20/2019

Facility_Name: **Inspection_Date:**   **2/19/2019**

Comments	Corrected
PI Name: -- IACUC ID: 18-236.0 -- Room Number: : -- Severity: M Multiple breeder cages with litters were identified without a date of birth. All breeder cages must have the litter date of birth recorded on the cage within a reasonable amount of time.	4/5/2019
PI Name: -- IACUC ID: 18-236.0 -- Room Number: : -- Severity: M Upon review of "Action Required" Card logs, inspectors noted excessive 'Action Required' cages identified by DCM for your colony. Please do not rely on DCM for your colony management and ensure that overcrowded cages are handled promptly by laboratory personnel.	4/5/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Inspectors noted patterns of mismarked documentation in the husbandry logs, requiring follow-up by management. The facility manager had documented these issues, and ensured animal welfare was not compromised.	3/20/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: ¯ ¯ -- Severity: N Husbandry logs throughout the facility indicate that on several days, humidity levels were outside the acceptable range of 30-70%. No animal health issues related to these changes were reported, as all cages are individually ventilated. Facility management is working to correct issues as soon as they are identified.	3/20/2019
PI Name: -- IACUC ID: 16-168.0 -- Room Number: -- Severity: N Inspectors noted that the upper right corner of the PI Feed and Water Check Sheet was not completed. Please ensure that the duty/duties being performed by research staff is/are indicated in this area.	3/20/2019
PI Name: -- IACUC ID: 16-291.0 -- Room Number: '-- Severity: M Inspectors identified a bag labeled with your protocol number containing 2 carcasses that did not appear to have had a secondary method of euthanasia performed on them. The carcasses were not yet frozen at the time of discovery (~3pm, 2/19/19). The UNC-CH IACUC Policy on Rodent Euthanasia requires a secondary physical method be performed on all animals before they are placed in the carcass cooler. Please review the policy (at the link below) with each of your lab members and reply to this email stating that all animal handlers in your lab have reviewed the policy: http://research.unc.edu/files/2012/11/Rodent-Euthanasia-Policy-2013-6.pdf	4/8/2019
PI Name: -- IACUC ID: 16-330.0 -- Room Number: -- Severity: M The check sheet for Duties Performed by Investigator was found to be incomplete (2/5-2/7). Documentation that feed is observed is required with a maximum of two consecutive days between observations and for the entire duration written on the sheet.	3/15/2019
PI Name: -- IACUC ID: 16-330.0 -- Room Number: -- Severity: M Inspectors found several expired medical products (acetaminophen, eye lubricant, heparin, etc.) within this PI maintained procedure room/space. All chemicals and supplies maintained in surgical areas must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals. Inspectors have made this comment to the lab following inspections of this facility over the last 3+ years. The deficiency noted in the report is a 'recommended' designation. The deficiency(ies) will be reviewed at the next full IACUC meeting and the recommended category may change based on IACUC review.	3/15/2019

Facility_Name: **Inspection_Date:**   **2/19/2019**

Comments	Corrected
PI Name: -- IACUC ID: 16-330.0 -- Room Number: -- Severity: M The survival surgical space maintained by the lab is consistently found to be contaminated with fecal material, blood, and other general clutter. Inspectors have made this comment to the lab following inspections of this facility over the last 3+ years. Please improve sanitation before and after surgeries in accordance with the Standard on Rodent Survival Surgery: https://research.unc.edu/files/2012/11/Guidelines-for-Aseptic-Technique-for-Rodent-Survival-Surgeries.pdf The deficiency noted in the report is a 'recommended' designation. The deficiency(ies) will be reviewed at the next full IACUC meeting and the recommended category may change based on IACUC review.	3/15/2019
PI Name: -- IACUC ID: 16-330.0 -- Room Number: -- Severity: M The equipment in the lab's dedicated procedure space does not appear to have been cleaned recently, and has fecal material buildup present. This equipment must be cleaned more thoroughly on a more frequent basis.	3/15/2019
PI Name: -- IACUC ID: 17-025.0 -- Room Number: -- Severity: M Multiple breeder cages with litters were identified without a date of birth. All breeder cages must have the litter date of birth recorded on the cage within a reasonable amount of time.	3/8/2019
PI Name: -- IACUC ID: 18-136.0 -- Room Number: -- Severity: N Inspectors identified 19 cages on rack with cards stating however inspectors were under the impression that is no longer working with the lab, and therefore these cages may need to be handled by another member of the lab.	3/13/2019
PI Name: -- IACUC ID: 17-113.0 -- Room Number: -- Severity: N Please contact the facility manager to obtain a Procedure Room maintenance log, as this is PI maintained space and must have a log of cleaning duties performed by the PI staff. The log does not need to be completed on days when the space is not utilized. However, this information should be clearly indicated on the log so it is easy to determine if the room is in use or not.	3/22/2019
PI Name: -- IACUC ID: 17-113.0 -- Room Number: -- Severity: N According to the EHS inspector, 'flammable' must be added to the door entry signage, as ethanol is present in the room.	3/22/2019

Comments	Corrected
PI Name: -- IACUC ID: 16-325.0 -- Room Number: -- Severity: N Inspectors noted during records review an increased number of escaped fish found around sinks, net soak and in hall. This was 42% of the escapee fish found in the room in the last 6 months. Increased care in the handling of the fish and double-checking for issues after handling fish is needed by all users.	1/15/2019
PI Name:) -- IACUC ID: 16-325.0 -- Room Number: -- Severity: N Inspectors noted the presence of fin clips performed on fish, which requires the use of anesthesia. However, the documentation for anesthesia was done in the log of another room. Please use the anesthesia log for the correct room in future.	1/15/2019
PI Name: -- IACUC ID: 00-000.0 -- Room Number: - Clean Cagewash -- Severity: N Inspectors found a box of expired autoclave steam monitor strips in the room. The disposed of the box immediately and will replace with an in-date box for future use.	1/28/2019
PI Name: -- IACUC ID: 16-035.0 -- Room Number: -- Severity: M Inspectors noted during records review an increased number of escaped fish found around the racks under this protocol #. This was 44% of the escapee fish found in the room in the last 6 months, and is more than could be due to fish using the feed hole in the top of the tanks to jump out. Increased care in the handling of the fish and double-checking for issues after handling fish is needed.	1/14/2019
PI Name: ¡ -- IACUC ID: 16-035.0 -- Room Number: -- Severity: N Records indicated 3 out of 8 fish died after the IVF squeeze procedure was performed on the fish. Please respond with explanation for increase in loss of fish during this procedure and if there could be any complicating factors (ex. Age, number of IVF procedures done on particular fish, etc.)	1/14/2019
PI Name: -- IACUC ID: 16-035.0 -- Room Number: -- Severity: N Anesthesia is required when performing fin clips on fish, please ensure the anesthesia log for the correct room is filled out each time this technique is performed.	1/14/2019
PI Name: -- IACUC ID: 17-119.0 -- Room Number: ¯ ` -- Severity: N Inspectors noted during records review an increased number of escaped fish found around sinks, net soak and in hall. This was 42% of the escapee fish found in the room in the last 6 months. Increased care in the handling of the fish and double-checking for issues after handling fish is needed by all users.	1/28/2019
PI Name: ¡) -- IACUC ID: 17-119.0 -- Room Number: -- Severity: N Anesthesia is required when performing fin clips on fish, please ensure the anesthesia log for the correct room is filled out each time this technique is performed.	1/28/2019
PI Name: ¸ ¡ -- IACUC ID: 16-160.0 -- Room Number: -- Severity: N Inspectors noted during records review an increased number of escaped fish found around sinks, net soak and in hall. This was 42% of the escapee fish found in the room in the last 6 months. Increased care in the handling of the fish and double-checking for issues after handling fish is needed by all users.	1/28/2019
PI Name: ¡ ¡ -- IACUC ID: 16-160.0 -- Room Number: -- Severity: N Anesthesia is required when performing fin clips on fish, please ensure the anesthesia log for the correct room is filled out each time this technique is performed.	1/28/2019

Facility_Name: **Inspection_Date:**   **1/10/2019**

Comments	Corrected
PI Name: -- IACUC ID: 18-001.0 -- Room Number: -- Severity: N Records indicated 4 out of 12 fish died after the IVF squeeze procedure was performed on the fish. Please respond with explanation for increase in loss of fish during this procedure and if there could be any complicating factors (ex. Age, number of IVF procedures done on particular fish, etc.)	1/28/2019
PI Name: -- IACUC ID: 18-001.0 -- Room Number: - Severity: N Inspectors noted during records review an increased number of escaped fish found around sinks, net soak and in hall. This was 42% of the escapee fish found in the room in the last 6 months. Increased care in the handling of the fish and double-checking for issues after handling fish is needed by all users.	1/28/2019
PI Name: -- IACUC ID: 18-001.0 -- Room Number: -- Severity: N Anesthesia is required when performing fin clips on fish, please ensure the anesthesia log for the correct room is filled out each time this technique is performed..	1/28/2019

Facility_Name: **Inspection_Date:**   **3/27/2019**

Comments	Corrected
PI Name: -- IACUC ID: 00-000.0 -- Room Number: -- Severity: N Facility was inspected with two IACUC members, no deficiencies found.	

Inspection Statistics

III.5.ii and iii: IACUC Membership and Functions: Inspections

	Dec 2013	May 2014	Dec 2014	Apr 2015	Oct 2015	Apr 2016	Oct 2016	Apr 2017	Oct 2017	April 2018	Oct 2018	April 2019	Change Apr 2018 : Apr 2019
Semiannual Facility Inspections	15	14	15	10	10 +5	15 +3	15	15	15	15	15	16	Added one DCM facility that was a satellite
Semiannual Laboratory Inspections	79	89	91	62	75	74	71	75	65	59	56	64	UP 8%
Biannual Informational Inspections	31	22	34	8	37	12	0	18	62	21	33	25	UP 19%
Quarterly Satellite Inspections	33	38	33	25	27	25	25	21	25	20	18	15	Some satellites closed or converted to DCM facility
Procedural Observations (Post Approval Monitoring – PAM)	23	24	17	9	32	18	3	13	13	29	36	28	No major change

Semiannual Inspections

```
              Total Inspections              64
     Total Completed Inspections             64
         Total No Deficiencies            62 (97%)
  Total Inspections With Deficiencies   2 (3%) ( Total deficiencies: 7)
```

Dept	Inspection Date	APSE	Deficiencies
	10/03/2018		0
	10/03/2018		0
	10/03/2018		0
	10/08/2018		0
	10/08/2018		0
	10/15/2018		0
	10/18/2018		0
	10/22/2018		1
	10/26/2018		0
	10/27/2018		0
	11/09/2018		0
	11/13/2018		0
	11/13/2018		0
	11/14/2018		0
	11/14/2018		0
	11/14/2018		0
	11/14/2018		0
	11/26/2018		0
	12/13/2018		0
	12/14/2018		0
	12/14/2018		0
	12/14/2018		0
	12/17/2018		0
	12/17/2018		0
	12/17/2018		0
	12/18/2018		0
	01/09/2019		5
	01/10/2019		0
	01/10/2019		0
	01/15/2019		0
	01/17/2019		0
	01/17/2019		0
	01/17/2019		0
	01/23/2019		0
	01/24/2019		0
	01/28/2019		0
	01/28/2019		0
	01/31/2019		0
	02/08/2019		0
	02/18/2019		0
	02/19/2019		0
	02/19/2019		0
	02/19/2019		0
	02/22/2019		0
	02/22/2019		0
	02/22/2019		0
	02/25/2019		0
	02/25/2019		0
	02/25/2019		0
	02/27/2019		0
	03/12/2019		0
	03/12/2019		0
	03/21/2019		0
	03/21/2019		0
	03/22/2019		0
	03/22/2019		0
	03/22/2019		0
	03/22/2019		0
	03/22/2019		0
	03/25/2019		0
	03/25/2019		0
	03/27/2019		0
	03/27/2019		0
	03/28/2019		0

Satellite Inspections

Total Inspections	15
Total Completed Inspections	15
Total No Deficiencies	14 (93%)
Total Inspections With Deficiencies	1 (7%) (Total deficiencies: 2)

Dept	Inspection Date	Deficiencies
	10/03/2018	0
	10/15/2018	0
	10/26/2018	0
	11/08/2018	0
	11/26/2018	0
	11/28/2018	0
	12/12/2018	0
	12/18/2018	0
	12/18/2018	1
	01/28/2019	0
	02/25/2019	0
	02/25/2019	0
	03/19/2019	0
	03/21/2019	0
	03/22/2019	0

Informational Inspections

```
                   Total Inspections              25
         Total Completed Inspections              25
                Total No Deficiencies          25 (100%)
   Total Inspections With Deficiencies     0 (0%) ( Total deficiencies: 0)
```

Dept	Inspection Date	Deficiencies
	10/02/2018	0
	10/02/2018	0
	10/08/2018	0
	10/08/2018	0
	10/08/2018	0
	10/11/2018	0
	10/15/2018	0
	10/26/2018	0
	11/05/2018	0
	11/09/2018	0
	11/13/2018	0
	11/13/2018	0
	11/14/2018	0
	11/16/2018	0
	11/16/2018	0
	12/05/2018	0
	12/06/2018	0
	12/06/2018	0
	12/07/2018	0
	12/17/2018	0
	01/09/2019	0
	02/14/2019	0
	02/22/2019	0
	02/22/2019	0
	03/18/2019	0

Procedural Observations

	Total Inspections	28
	Total Completed Inspections	28
	Total No Deficiencies	25 (89%)
	Total Inspections With Deficiencies	3 (11%) (Total deficiencies: 6)

Dept	Inspection Date	Deficiencies
	10/01/2018	0
	11/08/2018	2
	11/09/2018	0
	11/09/2018	0
	11/16/2018	0
	11/16/2018	0
	11/19/2018	0
	11/26/2018	0
	12/05/2018	2
	12/05/2018	0
	12/13/2018	0
	12/14/2018	0
	12/18/2018	3
	01/17/2019	0
	01/23/2019	0
	01/25/2019	0
	02/06/2019	0
	02/14/2019	0
	02/15/2019	0
	02/15/2019	0
	02/18/2019	0
	02/25/2019	0
	02/25/2019	0
	03/11/2019	0
	03/15/2019	0
	03/21/2019	0
	03/25/2019	0
	03/27/2019	0

Semiannual Laboratory Inspection Reports

IACUC Inspections Details Report

PI:	**Inspection Date:** 11/14/2018
PI PID	**Inspectors**
Inspection ID	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	No Deficiency
The eyewash must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks.	
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	No Deficiency
Inspectors discussed the use of transparent, non-PVC containing bags to store carcasses for disposal. These bags can be obtained through DCM, and should be used when disposing of carcasses as all carcasses leave campus for incineration. Please see policy at the following URL:	
http://research.unc.edu/files/2012/11/Disposal-of-Rodents-Carcasses-Policy.pdf	
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI: **Inspection Date:** 10/18/2018

PI PID   **Inspectors**

Inspection ID   283

Inspection Type   Semiannual

Lab Coordinators I

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
    The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main
    IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

    All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
    https://research.unc.edu/iacuc/policies-procedures/

    Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they
    are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable
    Inspectors spoke with   , the Principal Investigator, and   a laboratory member, during the inspection. All animal handlers
    and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once,
    while the DCM orientation must be renewed every 3 years.

    Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to
    ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable

Proper sharps disposal, hazardous waste disposal   Acceptable
    New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of
    updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed
    using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the
    Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements
    please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)   Acceptable
    Inspectors reminded the laboratory member that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention.
    Additionally, medical materials (e.g., suture, saline) used during survival procedures may not be expired. All pharmaceuticals used for anesthesia, analgesia,
    euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid
    accidental use in animals.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning   No Deficiency
    Because your laboratory is responsible for the sanitation of animal related experimental/behavior testing equipment, microbiological sampling may be
    necessary to ensure that adequate disinfection is taking place. DCM may contact you to set up a routine sampling of your equipment.

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable

Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	No Deficiency

Inspectors noted that isoflurane documentation was sometimes incomplete within the laboratory's anesthesia log book. Specifically, the start and end times that isoflurane was administered should be completed for each anesthesia record

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	No Deficiency

Please ensure that all documentation for anesthetized animals (undergoing a painful procedure) indicates that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex).

Procedures for administering and monitoring analgesia (survival surgery)	No Deficiency

Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Please ensure that each administration of post-operative analgesia associated with the protocol is documented.

Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable

The surgery spaces are very well organized and clean. Thank you for your extra efforts in maintaining a healthy environment for the animals and personnel using the space.

Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	No Deficiency

Prior to surgery, the laboratory initially sterilizes instruments used in survival surgeries with a cold sterilant. The lab is currently using disinfecting wipes to sterilize instruments between animals which is not an effective sterilant for surgical instruments. Inspectors suggested using a hot bead sterilizer to sterilize instrument tips between animals. Please review the IACUC 'Rodent Survival Surgeries' standard operating procedure at the link below and modify the aseptic techniques followed by lab members accordingly.

http://research.unc.edu/files/2012/11/Guidelines-for-Aseptic-Technique-for-Rodent-Survival-Surgeries.pdf

Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	Inspection Date: 03/12/2019
PI PID	Inspectors
Inspection ID 291	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

Inspectors spoke with _____ the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Based on conversation with _____ today, we learned that the only animal procedures conducted in your lab space (outside of DCM space) are non-survival tissue harvests after euthanasia. This procedure doesn't actually warrant a semiannual inspection of your lab space so we are changing you over to an Informational Inspection schedule instead.

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (http://research.unc.edu/offices/iacuc/index.htm). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 03/27/2019
PI PID	**Inspectors**
Inspection ID 296	
Inspection Type Semiannual	
Lab Coordinators	

1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

2 DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Principal Investigator (PI), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3 HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	N/A

4 ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5 AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	N/A
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	N/A
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6 PHYSICAL PLANT

Impervious surfaces	N/A
General cleanliness	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7 SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8 SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 10/26/2018
PI PID	**Inspectors**
Inspection ID 6540	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable
Inspectors spoke with [   ], the Laboratory Animal Coordinator (LAC), and [   ] during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable

Future inspections for your lab will include 2 IACUC members to review any USDA covered species work conducted in the six months prior to the inspection. If no USDA work has been conducted, a rodent based informational inspection will be conducted annually in the MIRB procedure room. Please reply to OACU inspection emails with as much detail as possible if you are unsure if your lab requires an inspection. We attempt to schedule inspections for USDA covered species work during the facility inspection process, so you will be inspected again in March, which is less than 6 months from this inspection, but will get you on the semiannual schedule needed to coordinate with the Marsico facility inspection dates. Please reach out to eweston@unc.edu if you have any questions.

Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable

Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 01/09/2019
PI PID	**Inspectors**
Inspection ID 9651	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	Acceptable

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/ All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/ Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years. Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place The eyewash must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks. This comment was previously made during the 01/31/18 inspection: The eyewash must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks.	Minor Deficiency
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) The laboratory had multiple bottles of expired ketamine and buprenex. All drugs used animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals. Please see the following training module for how to properly dispose of expired controlled substances and dispose of the expired drugs as soon as possible. https://apps.fo.unc.edu/ehs/training/dea-controlled-substances/ These comments were previously made during the 01/31/18 inspection: The laboratory had multiple bottles of expired ketamine and buprenex. All drugs used animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals. Please see the following training module for how to properly dispose of expired controlled substances and dispose of the expired drugs as soon as possible. https://apps.fo.unc.edu/ehs/training/dea-controlled-substances/	Minor Deficiency
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) Inspectors noticed the ophthalmic ointment was expired. Inspectors reminded the LAC/PI that, according to USDA Policy 3, expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention. Additionally, medical materials used during survival procedures may not be expired. A link to USDA Policy 3 can be found here: http://www.aphis.usda.gov/animal_welfare/downloads/Animal%20Care%20Policy%20Manual.pdf These comments were previously made during the 01/31/18 inspection: Inspectors noticed the ophthalmic ointment was expired. Inspectors reminded the LAC/PI that, according t...	Minor Deficiency

be used for anesthesia, analgesia, euthanasia, or acute intervention. Additionally, medical materials used during survival procedures may not be expired. A link to USDA Policy 3 can be found here:

http://www.aphis.usda.gov/animal_welfare/downloads/Animal%20Care%20Policy%20Manual.pdf

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Minor Deficiency

All controlled substances should be stored in a locked cabinet or other secure storage container with limited access by the office staff. There is no need to store controlled substances in the refrigerator. (http://www.deadiversion.usdoj.gov/faq /general.htm#sec-1)

The laboratory must maintain a running balance for all controlled substances, including ketamine and buprenorphine.

All records must include the initials of the person administering the drug.

The bottle number of each controlled substance must be annotated on the drug log.

Please refer to the following link for a copy of a suggested drug log to be used when accounting for controlled drug usage. Note that highlighted areas are required for controlled drugs: https://research.unc.edu/files/2012/11/Drug-Log-Template.pdf

These comments were previously made during the inspection on 01/31/18:

All controlled substances should be stored in a locked cabinet or other secure storage container with limited access by the office staff. There is no need to store controlled substances in the refrigerator. (http://www.deadiversion.usdoj.gov/faq /general.htm#sec-1)

The laboratory must maintain a running balance for all controlled substances, including ketamine and buprenorphine.

All records must include the initials of the person administering the drug.

The bottle number of each controlled substance must be annotated on the drug log.

Please refer to the following link for a copy of a suggested drug log to be used when accounting for controlled drug usage. Note that highlighted areas are required for controlled drugs: https://research.unc.edu/files/2012/11/Drug-Log-Template.pdf

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable
6. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Minor Deficiency

The laboratory must maintain documentation for all anesthetized animals indicating that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex). Please add this to your current documentation.

This comment was made during the 01/31/18 inspection:

The laboratory must maintain documentation for all anesthetized animals indicating that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex). Please add this to your current documentation.

Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	No Deficiency

Inspectors found a conical tube containing brown liquid (Povidone Iodine per LAC), without a chemical name or expiration date. The EHS Laboratory Safety Manual (3-6) states that you must "Clearly spell out the name of the chemical on the label any time you transfer substances from original containers to secondary containers, or when synthesizing/mixing new substances, if the substances are not for the immediate use of the handler or preparer."

Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interruption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A

HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 09/28/2018
PI PID	**Inspectors**
Inspection ID 9716	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.	
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:		**Inspection Date:** 10/08/2018
PI PID		**Inspectors**
Inspection ID	9718	
Inspection Type	Semiannual	
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Principal Investigator during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form, annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable

University of North Carolina - Chapel Hill

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	Inspection Date: 10/03/2018
PI PID	Inspectors
Inspection ID 9719	IACUC
Inspection Type Semiannual	IACUC
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
 https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

Inspectors spoke with   :, a laboratory member, and   , the Principal Investigator, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place — No Deficiency

The eyewash must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks. Documentation showed this check had not been done since June, 2018.

Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	No Deficiency

Inspectors discussed the use of transparent, non-PVC containing bags to store carcasses for disposal. These bags can be obtained through DCM, and should be used when disposing of carcasses as all carcasses leave campus for incineration. Please see policy at the following URL:

http://research.unc.edu/files/2012/11/Disposal-of-Rodents-Carcasses-Policy.pdf

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable

Expired/Unwanted Controlled Substance (e.g. >0.5 ml or mg by volume in leftover multiuse vials or bulk powder containers, unused tablets, capsules, ampules or vials):

In cases where product is unwanted or expired, registrants must contact NC-DHHS AND UNC EHS representatives to schedule controlled substance destruction. If large quantities of controlled substances are identified, (e.g. abandonment or retirement), registrants may also need to contact a DEA certified reverse distributor to arrange for reverse disposal. Because this list changes due to registration requirements, please contact NC-DHHS, Drug Control Unit at 919-733-1765 or DEA Diversion Control at 336-547-4219 or the EHS Hazardous Materials Manager (919-962-5509) for approved vendors.

Please see the following training module for how to properly dispose of expired controlled substances:https://apps.fo.unc.edu/ehs/training/dea-controlled-substances/

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 11/09/2018
PI PID	**Inspectors**
Inspection ID 9737	
Inspection Type Semiannual	
Lab Coordinators	

1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab

2 DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years. Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3 HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4 ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5 AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable

During our most recent AAALAC site visit, site visitors recommended the institution provide additional guidance concerning the use of tribromoethanol (i.e., TBE or Avertin). These guidelines ensure the proper and consistent preparation, storage, and time to expiration of TBE for safe usage and will be noted during IACUC inspections. The new standard issued by the IACUC can be reviewed here: https://research.unc.edu/files/2018/05/University-Standard-for-Tribromoethanol.pdf

Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6 PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7 SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable

Fixed equipment is sanitizable	Acceptable

8 SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	No Deficiency

Please ensure that all documentation for anesthetized animals (undergoing a painful procedure) indicates that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex).

Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10 SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11 AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:

PI PID

Inspection ID   9743

Inspection Type   Semiannual

Lab Coordinators

Inspection Date: 10/03/2018

Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	
2. DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/ All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/ Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years. Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
3. HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.	
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
4. ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A
5. AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable
6. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	No Deficiency
Please ensure that lab members are cleaning the container utilized for isoflurane drop method after each use.	
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable

Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 10/03/2018
PI PID	**Inspectors**
Inspection ID 9744	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	

2. DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.	
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:

PI PID
Inspection ID   9751
Inspection Type   Semiannual
Lab Coordinators

Inspection Date: 10/15/2018
Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
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Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Principal Investigator, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable

Inspectors reminded the LAC that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention. Additionally, medical materials (e.g., suture, saline) used during survival procedures may not be expired. All pharmaceuticals used for anesthesia, analgesia, euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable

Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area Per the UNC IACUC <u>Standard for Aseptic Technique in Rodent Survival Surgeries</u>, preparation of rodent skin prior to surgery should be performed as follows: Prepare the surgical site by using alternating applications of skin antiseptics such as ethyl or isopropyl alcohol, followed by an Iodophor solution or Chlorhexidine scrub (Solution = 10%, scrub = 7.5%). Using sterile cotton tipped applicators or gauze, start with the first alcohol application. Starting in the center of the incision site, spiral outward in concentric circles toward the margins of the prepared area (never go back and forth over a cleansed area with the same gauze). Follow the alcohol application with the first Iodophor or Chlorhexadine application repeating the concentric circle pattern. Repeat the alcohol and Iodophor or Chlorhexidine step for a total of three times each. Use a new gauze or cotton tipped applicator for each application.	No Deficiency
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 10/08/2018
PI PID	**Inspectors**
Inspection ID 9754	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
 https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Principal Investigator and Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	No Deficiency

Please ensure that mouse cages and water bottles are returned to DCM as soon as possible after laboratory procedures or surgeries.

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	Inspection Date: 10/27/2018
PI PID	**Inspectors**
Inspection ID 9765	IACUC
Inspection Type Semiannual	
Lab Coordinators.	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — **Acceptable**

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with a laboratory member, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	No Deficiency

The eyewash must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks.

Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable

University of North Carolina - Chapel Hill

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	Inspection Date: 10/22/2018
PI PID	Inspectors
Inspection ID 9766	
Inspection Type Semiannual	
Lab Coordinators	

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1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with _____, the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Minor Deficiency

Inspectors noted several surgical logs, maintained by different researchers within the laboratory lacking consistent documentation for type of procedure, analgesic administration, and toe pinch. Because type of procedure indicates whether other duties such as post-operative monitoring/analgesics are required, it is imperative that each researcher complete each surgical log in its entirety. If a certain duty is not required for a certain surgery, please indicate this by 'N/A' or similar marking to avoid the appearance of incomplete documentation.

On 4/27/18 the lab received the following inspection comment: "Inspectors noted the surgical and postoperative monitoring record for one surgeon combined all post-operative monitoring and analgesia administration into one combined documentation. All post-operative monitoring and analgesia administrations must be documented as they are performed as separate entries."

On 10/9/2017 the lab received the following inspection comment:
The laboratory must maintain documentation for all anesthetized animals indicating that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex). Please add this to your current documentation for perfusions (pentobarbital records) and ensure that those conducting survival procedures are documenting consistently.

On 4/18/2017 the lab received the following inspection comment:
"Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approve application. Please ensure that all individuals in the laboratory document each administration of post-operative analgesia associated with the protocol."

Since the April 2017 inspection, the lab has created templates to be completed by each surgeon during procedures. However, during this inspection, these new logs were still found to be inconsistently completed.

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	No Deficiency
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	No Deficiency
Procedures for administering and monitoring analgesia (survival surgery)	No Deficiency
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

University of North Carolina - Chapel Hill

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	No Deficiency
Please ensure that multi-use items are adequately cleaned between procedures to prevent contamination (i.e. needle entry on the sterile saline bag should be cleaned between uses).	
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Please ensure that any items that cannot be autoclaved, and are utilized in survival surgeries/procedures, are properly sterilized with appropriate contact times (i.e. alcohol used to soak special equipment).	
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	No Deficiency

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 11/13/2018
PI PID	**Inspectors**
Inspection ID 10778	
Inspection Type Semiannual	
Lab Coordinators`	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for re-certification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	No Deficiency

Please ensure that all animal handlers are aware of the UNC-IACUC Policy on Rodent Toe Clipping and that toe clipping is only performed on protocols where the technique is included in sections 5.8.4 and 6.0.1.

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 11/14/2018
PI PID	**Inspectors**
Inspection ID 10779	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

Please ensure that the full date (including year) is documented on drug logs and surgical records.

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10 SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11 AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

University of North Carolina - Chapel Hill

PI:	Inspection Date: 11/14/2018
PI PID	Inspectors
Inspection ID 10780	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

Please ensure that the full date (including year) is documented on drug logs and surgical records.

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:

Inspection Date: 11/14/2018

PI PID

Inspectors

Inspection ID   10781

Inspection Type   Semiannual

Lab Coordinators

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

Inspectors spoke with ...., the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	No Deficiency

The LAC was informed that anytime drugs are disposed of or a bottle emptied, a witness must be present and initial/sign the drug log at that time. Please see page 8 of the following document for more detailed information regarding disposal of or 'zeroing' balances for controlled substances: http://research.unc.edu/files/2013/03/CCM3_039065.pdf

Also, errors on accounting logs should be corrected with a single strike through, initials, and explanation. Scratching through the error or using white out is not good practice, especially in DEA controlled substance logs.

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

Because your laboratory is responsible for the sanitation of animal related experimental/behavior testing equipment, microbiological sampling may be necessary to ensure that adequate disinfection is taking place. DCM may contact you to set up a routine sampling of your equipment.

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

University of North Carolina - Chapel Hill

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 11/26/2018
PI PID	**Inspectors**
Inspection ID 10784	
Inspection Type Semiannual	
Lab Coordinators	

1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable

2 DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3 HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4 ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5 AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6 PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7 SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8 SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A

Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI: **Inspection Date:** 12/17/2018
PI PID   **Inspectors**
Inspection ID   10788
Inspection Type   Semiannual
Lab Coordinators

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	No Deficiency

Although no survival surgery is being conducted in the lab space currently, it is still important to discard, or clearly label 'for acute use only' any thing that has reached its expiration date (i.e. cephazolin, sutures, etc.)

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	No Deficiency

The PI or LAC should contact DEA/DHHS regarding the storage of controlled drugs once they are connected to the surgical setup. All controlled drugs are required by DEA to be maintained behind a double lock when not in use, and the current setup does not allow for this.

https://apps.fo.unc.edu/ehs/training/dea-controlled-substances/

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	No Deficiency

Please ensure that multi-use drug vials are wiped clean before and after drug is removed to reduce buildup on the area where needles are inserted for drug withdrawal.

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 12/14/2018
PI PID	**Inspectors**
Inspection ID 10809	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
 https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   ', the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	No Deficiency

Inspectors noted that an error had been made on the drug log and then scribbled through multiple times with a pen. When an error is made in accounting for a controlled substance, a single line should be made through the entry and initialed by the person making the entry, so that the entry is still legible. A note should be made next to the entry clarifying the error that was made and the correction.

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:
PI PID
Inspection ID   10812
Inspection Type Semiannual
Lab Coordinators

Inspection Date: 12/13/2018
Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable

During our most recent AAALAC site visit, site visitors recommended the institution provide additional guidance concerning the use of tribromoethanol (i.e., TBE or Avertin). These guidelines ensure the proper and consistent preparation, storage, and time to expiration of TBE for safe usage and will be noted during IACUC inspections. The new standard issued by the IACUC can be reviewed here:University Standard for Preparation Storage and Use of Tribromoethanol

Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency

During review of drug logs, the inspectors noted the lab was documenting post-operative carprofen analgesia as required by UNC IACUC guidelines. However, the inspectors had one suggestion for improvement to clarify recording of carprofen given. The laboratory administers carprofen via drinking water or via subcutaneous injection depending on the protocol, and the electronic log automatically populates the amount given for both administration routes for all records regardless of which was actually used and then they answer either 'Yes' or 'No' in the adjoining columns to indicate if the analgesic was utilized. The inspector suggested adding the verbiage "Amount given..." to the drinking water and subcutaneous injection columns and removing the adjoining 'Yes/No' column.

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	Stephen L Tilley	**Inspection Date:**	12/14/2018
PI PID	702392584	**Inspectors**	
Inspection ID	10814		
Inspection Type	Semiannual		
Lab Coordinators	Corey Jania		
	Stephen Tilley		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — **Acceptable**

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — **Acceptable**

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — **Acceptable**

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — **Acceptable**

Inspectors spoke with ____ the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — **Acceptable**

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place — **Acceptable**

Procedures for using/scavenging volatile anesthetics; check for Fair can weight — **N/A**

Proper sharps disposal, hazardous waste disposal — **Acceptable**

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted — **Acceptable**

Proper carcass disposal (especially hazard contaminated) — **Acceptable**

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 — **Acceptable**

Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) — **Acceptable**

Cage side chemical hazard identification training — **N/A**

Review of chemical hazard forms by laboratory personnel before initial use — **Acceptable**

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine — **Acceptable**

Clinical records for individual animals (covered species) — **N/A**

Analgesia/anesthesia use as described in approved ACAP — **Acceptable**

Euthanasia performed as described in approved ACAP; tools sharp/adequate — **Acceptable**

Means to track animal usage/Euthanasia log — **Acceptable**

MONITORING DOCUMENTATION (weight, drugs, post op care, etc) — **Acceptable**

Toe Clip Discussion (max P10, 2 toes, approved in ACAP) — **N/A**

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) — **Acceptable**

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) — **Acceptable**

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? — **N/A**

Proper Controlled Substance Storage and Records; double lock — **Acceptable**

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention — **Acceptable**

6. PHYSICAL PLANT

Impervious surfaces — **Acceptable**

General cleanliness — **Acceptable**

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning — **Acceptable**

Because your laboratory is responsible for the sanitation of animal related experimental/behavior testing equipment, microbiological sampling may be necessary to ensure that adequate disinfection is taking place. DCM may contact you to set up a routine sampling of your equipment.

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery) — **N/A**

Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide — **N/A**

Interior surfaces smooth and impervious to moisture — **N/A**

Fixed equipment is sanitizable	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:

PI PID

Inspection ID   10825

Inspection Type   Semiannual

Lab Coordinators

Inspection Date: 12/17/2018

Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

Inspectors spoke with   , the PI and Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	No Deficiency

Please ensure that records for procedures are completed with check marks to indicate that all described duties were performed. If the duties are not required, you may remove them from the record template, or place an 'N/A' if not needed for that procedure. While check boxes are not required for all duties (eye lube, heat pad, etc.), if they are there, they should be checked off. Failing to do so could indicate that the duty was not completed.

A line through multiple boxes may be confusing to reviewers and should be replaced with a check mark on each line.

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	Inspection Date: 12/17/2018
PI PID	Inspectors
Inspection ID 10832	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable

Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	Inspection Date: 12/18/2018
PI PID	Inspectors
Inspection ID 10834	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Principal Investigator, and   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency

Inspectors noted that the laboratory was correcting errors made on drug documentation with white-out. When an error is made in drug documentation, a single line should be made through the entry and initialed by the person making the entry, so that the entry is still legible. A note should be made next to the entry clarifying the error that was made and the correction.

Please ensure that drug records are recorded in pen and to consistently record the time that post-operative analgesics are given.

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable

University of North Carolina - Chapel Hill

Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	No Deficiency
The laboratory must maintain documentation for all anesthetized animals indicating that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex). Please ensure that toe-pinch is documented consistently across all non-survival surgery records.	
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 12/14/2018
PI PID	**Inspectors**
Inspection ID 10835	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Principal Investigator, and   a laboratory member, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable

| Procedures for administering and monitoring analgesia (survival surgery) | Acceptable |
| Proper anesthetics, doses, routes of anesthesia (records maintained) | Acceptable |

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	No Deficiency

Per the UNC IACUC Standard for <u>Aseptic Technique in Rodent Survival Surgeries</u>, preparation of rodent skin prior to surgery should be performed as follows: Prepare the surgical site by using alternating applications of skin antiseptics such as ethyl or isopropyl alcohol, followed by an Iodophor solution or Chlorhexidine scrub (Solution = 10%, scrub = 7.5%). Using sterile cotton tipped applicators or gauze, start with the first alcohol application. Starting in the center of the incision site, spiral outward in concentric circles toward the margins of the prepared area (never go back and forth over a cleansed area with the same gauze). Follow the alcohol application with the first Iodophor or Chlorhexadine application repeating the concentric circle pattern. Repeat the alcohol and Iodophor or Chlorhexidine step for a total of three times each. Use a new gauze or cotton tipped applicator for each application.

Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 01/10/2019
PI PID	**Inspectors**
Inspection ID 10842	IACUC Vet
Inspection Type Semiannual	IACUC Members
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with the PI and the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

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Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	No Deficiency

IACUC Members indicated that they would like to see the lab de-cluttered and animal use spaces cleaned prior to any future animal procedures. The lab indicated that they had not performed animal procedures in the space recently, and that the space would be cleaned prior to animal work.

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A

Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 02/08/2019
PI PID	**Inspectors**
Inspection ID 10843	IACUC
Inspection Type Semiannual	IACUC Vet
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with the PI and . during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	N/A
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	N/A
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency

Please ensure that all information is documented consistently on each drug log, including schedule, drug name, route, dose, etc.

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	No Deficiency

Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use of isoflurane must be available to IACUC personnel.

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Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	No Deficiency

Please ensure that all documentation for anesthetized animals (undergoing a painful procedure) indicates that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex).

Below are updated templates that include a space for this documentation:
https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf
https://research.unc.edu/files/2012/11/Isoflurane-Drop-Method-Log-Template.pdf
https://research.unc.edu/files/2012/11/Drug-Log-Template.pdf
https://research.unc.edu/files/2017/02/UNC-IACUC-Rodent-Anesthesia-Analgesia-Procedure-Record.pdf

Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 01/24/2019
PI PID	**Inspectors**
Inspection ID 10847	
Inspection Type Semiannual	
Lab Coordinators.	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   a member of the lab, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable

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Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 01/28/2019
PI PID	**Inspectors**
Inspection ID 10849	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

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All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	No Deficiency

Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use of isoflurane must be available to IACUC personnel, and must be completed for ALL procedures involving the use of isoflurane including survival surgeries AND drop method.

Current survival surgical logs were missing some isoflurane administration, and the lab needs to begin utilizing an isoflurane drop method log: https://research.unc.edu/files/2012/11/Isoflurane-Drop-Method-Log-Template.pdf

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	N/A

The lab's two animal procedure rooms on the 4th floor of GMB require a more thorough and frequent cleaning to remove debris such as bedding and feces left after experiments. Please ensure all areas (including isoflurane drop chambers are cleaned after use).

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	No Deficiency
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 01/10/2019
PI PID	**Inspectors**
Inspection ID 10850	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with , the Laboratory Animal Coordinator (LAC), and during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	N/A
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 01/28/2019
PI PID	**Inspectors**
Inspection ID 10851	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable
Inspectors spoke with   , the Laboratory Animal Coordinators (LACs), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:
PI PID
Inspection ID   10857
Inspection Type   Semiannual
Lab Coordinators

Inspection Date: 01/31/2019
Inspectors

IACUC
DCM Veterinarian

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted | Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   and , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	No Deficiency

Please add the year to your eyewash documentation. All documentation should include the month and year.

Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	No Deficiency

Please update mill date on the secondary feed container as new feed is added.

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 01/15/2019
PI PID	**Inspectors**
Inspection ID	10861
Inspection Type	Semiannual
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), and   during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	No Deficiency

Please ensure that the year is added to all drug logs consistently, and that if drugs reach their expiration date, they are immediately labeled 'Expired - do not use'.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

Below are links to templates for use with Isoflurane as discussed during the inspection:

Isoflurane Vaporizer Monitoring Log Template: https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf

Isoflurane Drop Method Log Template: https://research.unc.edu/files/2012/11/Isoflurane-Drop-Method-Log-Template.pdf

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:		**Inspection Date:** 01/23/2019
PI PID		**Inspectors**
Inspection ID	11860	
Inspection Type	Semiannual	
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with the PI during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 02/22/2019
PI PID	**Inspectors**
Inspection ID 11862	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	No Deficiency

Please ensure that all animal handlers are aware of the UNC-IACUC Standard on Rodent Toe Clipping, and understand that no more than 2 toes per paw may be removed and that toe clips MUST be performed on or before the animal reaches 10 days of age.

University Standard for Rodent Identification: **https://research.unc.edu/files/2015/05/Rodent-Identification.pdf**

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable

Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 02/18/2019
PI PID	**Inspectors**
Inspection ID 11869	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with , the Principal Investigator (PI), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable

Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 03/21/2019
PI PID	**Inspectors**
Inspection ID 11876	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place — Acceptable

Procedures for using/scavenging volatile anesthetics; check for Fair can weight — Acceptable

Proper sharps disposal, hazardous waste disposal — Acceptable

Current copy of Needle Safety in Animal Studies posted — Acceptable

Proper carcass disposal (especially hazard contaminated) — Acceptable

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 — Acceptable

Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) — No Deficiency

Inspectors noted the absence of a warning sign at the entrance to MBRB 6304. An editable PDF can be found on the "Room Use" page of the lab's online lab safety plan, please update information and replace old signage.

Cage side chemical hazard identification training — Acceptable

Review of chemical hazard forms by laboratory personnel before initial use — Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine — Acceptable

Clinical records for individual animals (covered species) — N/A

Analgesia/anesthesia use as described in approved ACAP — Acceptable

Euthanasia performed as described in approved ACAP; tools sharp/adequate — Acceptable

Means to track animal usage/Euthanasia log — Acceptable

MONITORING DOCUMENTATION (weight, drugs, post op care, etc) — Acceptable

Toe Clip Discussion (max P10, 2 toes, approved in ACAP) — Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) — Acceptable

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) — Acceptable

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? — N/A

Proper Controlled Substance Storage and Records; double lock — Acceptable

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention — Acceptable

6. PHYSICAL PLANT

Impervious surfaces — Acceptable

General cleanliness — Acceptable

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning — Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery) — Acceptable

Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide — Acceptable

Interior surfaces smooth and impervious to moisture — Acceptable

Fixed equipment is sanitizable — Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care — Acceptable

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	No Deficiency

Please ensure that all documentation for anesthetized animals (undergoing a painful procedure) indicates that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex).

https://research.unc.edu/files/2012/11/Drug-Log-Template.pdf

Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:

PI PID
Inspection ID 11877
Inspection Type Semiannual
Lab Coordinators

Inspection Date: 02/19/2019
Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

2. DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. Because this LAC is relatively new to the lab, and is working to improve compliance among the animal handlers, comments in this report are deemed 'No Deficiency'. We will return to the lab in 3 months to re-evaluate progress to full compliance. Further issues will be reported to the IACUC, and may be cited as Deficiencies.

All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable

Specific surgery, drugs, and date/time for each administration MUST be documented for every surgery. All surgeons should review the surgery section in the IACUC protocol(s)for the surgeries that they perform and ensure that the appropriate analgesics are provided on the time schedule indicated within the protocol. If the appropriate pharmaceutical grade analgesics are not available within the lab, surgeries may not be performed.

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	No Deficiency

Inspectors reminded the LAC that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention. Additionally, medical materials (e.g., eye lubricant) used during survival procedures may not be expired. All pharmaceuticals used for anesthesia, analgesia, euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	No Deficiency

The inspectors explained that all products used within live animals must be pharmaceutical or veterinary grade, unless otherwise approved onto a protocol. Scientific grade products cannot be used in live animals, unless approved by the IACUC.

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency

See other comments.

6. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	No Deficiency
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
7. SURGICAL PROCEDURES: General Considerations	

University of North Carolina - Chapel Hill

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8 SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care 　Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved 　application. Logs documenting use of isoflurane vaporizer must include the start and stop time of anesthesia.	No Deficiency
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained) 　See other comments.	No Deficiency

9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure 　The space around the IVIS machine must be cleaned more frequently as mouse feces and bedding was present.	No Deficiency
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species) 　See other comments.	No Deficiency

10 SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11 AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:

PI PID
Inspection ID   11878
Inspection Type   Semiannual
Lab Coordinators

Inspection Date: 02/25/2019
Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with _____, the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	Inspection Date: 02/25/2019
PI PID	Inspectors
Inspection ID 11879	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 02/22/2019
PI PID	**Inspectors**
Inspection ID 11892	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The inspector spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	No Deficiency

Non-hazardous sharps should be placed in the white plastic sharps containers. If utilizing red bio-hazardous sharps containers, the bio-hazard label should be covered with black tape. Non-hazardous sharps labels can be found by following the link below. The non-hazardous sharps containers should be disposed of in regular trash once they are 2/3 full. https://ehs.unc.edu/lab/labels/non_haz_needles_sharps/

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable

Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 11/13/2018
PI PID	**Inspectors**
Inspection ID 11895	
Inspection Type Semiannual	IACUC Vet
Lab Coordinators	

1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

2 DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with ·   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3 HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	No Deficiency

Please contact EHS regarding the use of isoflurane (drop method) outside of a hood to ensure that it is safe for personnel to use in this area.

Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4 ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5 AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	

6 PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7 SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8 SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A

University of North Carolina - Chapel Hill

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 02/19/2019
PI PID	**Inspectors**
Inspection ID 11898	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A

Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 02/25/2019
PI PID	**Inspectors**
Inspection ID 11901	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with the PI and the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

University of North Carolina - Chapel Hill

PI:	**Inspection Date:** 03/27/2019
PI PID	**Inspectors**
Inspection ID 11902	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	No Deficiency

The eyewash must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks.

Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	No Deficiency

As discussed, if the lab is experiencing pups too small to wean at the new 23 day wean date requirement, on a consistent basis, a meeting should be held with a DCM veterinarian to determine if an IACUC Exception is needed.

Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 03/22/2019
PI PID	**Inspectors**
Inspection ID 11905	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable

2. DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable

Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:
PI PID
Inspection ID   11906
Inspection Type   Semiannual
Lab Coordinators.

Inspection Date: 03/28/2019
Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	No Deficiency

If toeclips are to be used by lab staff, they MUST be added to the protocols prior to use. Please amend the protocol immediately if you wish to utilize toe clips in mice. Below is the Standard for your reference: https://research.unc.edu/files/2015/05/Rodent-Identification.pdf

Toe clipping must be scientifically justified in an approved IACUC protocol. Adequate justification does not include cost, convenience or lack of formal training. When utilized as a method of identification, toe clipping should only be used when no other identification methods are feasible and should be combined with genotyping.

Toe clips must be performed on or before 10 days of age. The ideal timing is between 5-7 days of age when the toes are separate and the bone not calcified and the toes are no longer webbed. Toe clipping beyond 10 days of age is considered painful and is not an acceptable procedure for either identification or genotyping. If tissue for genotyping is required beyond 10 days of age, alternative methods of collecting tissues should be considered.

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	No Deficiency

Inspectors reminded the LAC that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention.

Additionally, medical materials (e.g., suture, saline) used during survival procedures may not be expired. All pharmaceuticals used for anesthesia, analgesia, euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	No Deficiency

Please ensure that behavior chambers in TB cubicles are repaired and monitored, and that animals are placed in home cages when not in study.

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A

Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 03/12/2019
PI PID	**Inspectors**
Inspection ID 11908	
Inspection Type Semiannual	
Lab Coordinators	

1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable

2 DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: **https://research.unc.edu/iacuc/**	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: **https://research.unc.edu/iacuc/policies-procedures/**	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with _____ the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3 HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4 ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5 AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6 PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7 SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8 SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

University of North Carolina - Chapel Hill

IACUC Inspections Details Report

PI:	**Inspection Date:** 01/17/2019
PI PID	**Inspectors**
Inspection ID 11909	
Inspection Type Semiannual	IACUC ·
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable
Inspectors spoke with _____ the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable
Please ensure that the new LAC is added to the protocols and that contact information is updated in DCM as needed.

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place — Acceptable

Procedures for using/scavenging volatile anesthetics; check for Fair can weight — N/A

Proper sharps disposal, hazardous waste disposal — Acceptable

Current copy of Needle Safety in Animal Studies posted — Acceptable

Proper carcass disposal (especially hazard contaminated) — Acceptable

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 — Acceptable

Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) — Acceptable

Cage side chemical hazard identification training — No Deficiency
As mentioned during the inspection, DCM has a card system in place that requires researchers that treat their animals with hazards that could pose any health risk to DCM to mark those cages for a period of time after dosing. You must contact the Facility Manager where your animals are housed and dosed so they can properly train your lab in the use of this card system. https://research.unc.edu/files/2012/11/CCM3_032544.pdf

Review of chemical hazard forms by laboratory personnel before initial use — Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine — Acceptable

Clinical records for individual animals (covered species) — N/A

Analgesia/anesthesia use as described in approved ACAP — Acceptable

Euthanasia performed as described in approved ACAP; tools sharp/adequate — Acceptable

Means to track animal usage/Euthanasia log — Acceptable

MONITORING DOCUMENTATION (weight, drugs, post op care, etc) — Acceptable

Toe Clip Discussion (max P10, 2 toes, approved in ACAP) — Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) — Acceptable

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) — Acceptable

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? — N/A

Proper Controlled Substance Storage and Records; double lock — Acceptable

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention — Acceptable

6. PHYSICAL PLANT

Impervious surfaces — Acceptable

General cleanliness — Acceptable

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning — No Deficiency
Inspectors indicated that Rocal D has a shelf life once diluted, and should be labeled with an expiration date. Additionally, since it has been discontinued, the DCM vet present for the inspection indicated that some investigators are utilizing a product called 'Rescue' in place of Rocal in some cases. https://rescuedisinfectants.com/

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery) — Acceptable

Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide — Acceptable

Interior surfaces smooth and impervious to moisture — Acceptable

Fixed equipment is sanitizable — Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 01/17/2019
PI PID	**Inspectors**
Inspection ID 11911	
Inspection Type Semiannual	IACUC·
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

· The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	No Deficiency

EHS has issued an updated SOP for the handling of isoflurane and charcoal canisters. A newly created FAQ sheet for the use and disposal of F/AIR canisters can be found here: https://research.unc.edu/files/2017/08/isoflurane-fact-sheet.pdf

Canisters are to be weighed frequently if in use. If the total increase is close to manufacturer specified limits (for F/Air canisters this is 50 g), it should be replaced, or monitored closely during use by weighing between animals.

Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	No Deficiency

Clearly indicate which drugs are given to each animal as required for postoperative care. Some records were difficult to interpret, although once explained, it was apparent that adequate post operative care had been provided.

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable

Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:		**Inspection Date:** 01/17/2019
PI PID		**Inspectors**
Inspection ID	11914	IACUC Member
Inspection Type	Semiannual	IACUC Member
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   a member of the lab, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:

PI PID
Inspection ID   11917
Inspection Type   Semiannual
Lab Coordinators

Inspection Date: 03/22/2019
Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted | Acceptable
Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 09/28/2018
PI PID	**Inspectors**
Inspection ID 11918	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.	
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 03/22/2019
PI PID	**Inspectors**
Inspection ID 11920	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A

Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10 SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11 AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 03/21/2019
PI PID	**Inspectors**
Inspection ID 11923	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
Inspectors spoke with   during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area   No Deficiency
Please ensure that the LACs inspect the 24 hour contact list posted in the animal housing rooms to ensure that at least one emergency contact is provided should DCM or IACUC personnel need to contact the laboratory on weekends, holidays, and after hours.

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   Acceptable

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place   No Deficiency
The lab has not used the space since 11/2018, however monthly eyewash station documentation was not present since 08/2018. Please ensure this task is completed or that the log indicates months not in use.

Procedures for using/scavenging volatile anesthetics; check for Fair can weight   Acceptable

Proper sharps disposal, hazardous waste disposal   Acceptable

Current copy of Needle Safety in Animal Studies posted   Acceptable

Proper carcass disposal (especially hazard contaminated)   No Deficiency
Carcasses must be disposed of properly immediately after euthanasia. They may be stored in the lab fridge or freezer until taken to the carcass freezers in DCM. All bags must be labeled with the protocol number.

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119   Acceptable

Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)   No Deficiency
The laboratory must post lab safety signage on the exterior of the door to BW 8061, consistent with the EHS lab safety plan.

Cage side chemical hazard identification training   Acceptable

Review of chemical hazard forms by laboratory personnel before initial use   Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine   Acceptable

Clinical records for individual animals (covered species)   N/A

Analgesia/anesthesia use as described in approved ACAP   Acceptable

Euthanasia performed as described in approved ACAP; tools sharp/adequate   Acceptable

Means to track animal usage/Euthanasia log   Acceptable

MONITORING DOCUMENTATION (weight, drugs, post op care, etc)   Acceptable

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)   N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)   No Deficiency
Please ensure that all expired materials are removed from the animal work space or that they are labeled 'Expired - for acute use only' to avoid accidental use in survival procedures. Future non-compliance in this area may result in deficiency comments reported to the IACUC.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)   Acceptable

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?   N/A

Proper Controlled Substance Storage and Records; double lock   No Deficiency
All controlled drugs, including dilute stocks for procedures, must remain in control of the person who signed them out, or be locked in a DHHS approved location. They may not be left in the unlocked lab space on the bench top.

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention   No Deficiency
The lab must be able to account for DEA controlled drugs from receipt to use/waste, including amounts removed from the stock bottles to create the cocktail bottles, and from the cocktail bottle to the individual animal.

All drug logs must be completed, including protocol numbers, dates, and toe pinch prior to procedure.

6. PHYSICAL PLANT

Impervious surfaces   Acceptable

General cleanliness   No Deficiency
The lab space must be thoroughly cleaned before and after procedures, including hood space used for inhalation exposure, bench top, procedure supplies etc.

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	No Deficiency
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	No Deficiency
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

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11933

PI:	**Inspection Date:** 03/25/2019
PI PID	**Inspectors**
Inspection ID 11933	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area   Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA
Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	No Deficiency

DCM has a card system in place that requires researchers that treat their animals with hazards that could pose any health risk to DCM to mark those cages for a period of time after dosing. You must contact the Facility Manager where your animals are housed and dosed with Tamoxifen so they can properly train your lab in the use of this card system.

https://research.unc.edu/files/2012/11/CCM3_032544.pdf

Review of chemical hazard forms by laboratory personnel before initial use   Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A

Fixed equipment is sanitizable	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 03/22/2019
PI PID	**Inspectors**
Inspection ID 11934	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
Inspectors spoke with   the Laboratory Animal Coordinators (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
  https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A

Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 03/25/2019	
PI PID	**Inspectors**	
Inspection ID 11936		
Inspection Type Semiannual		
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with the PI, a surgeon, and the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable

Maintained by DCM, reviewed during DCM surgery suite inspection with 2 IACUC members.

Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	No Deficiency

Please include duration for isoflurane use in the donor animals, in addition to the recipients.

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A

Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:		Inspection Date: 02/27/2019
PI PID		Inspectors
Inspection ID 11945		IACUC Vet
Inspection Type Semiannual		IACUC -
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
Inspectors spoke with the PI, who also serves as the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.	

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	No Deficiency

Records for the hamster work were well maintained, and reviewed by two IACUC members during this inspection.

The IACUC inspectors suggest that the PI include a brief summary of data collected for each set of data, to make USDA review of records easier and more streamlined. When an animal is removed from the study, please indicate clearly when this occurs so that blank documentation following the removal is less likely to be interpreted as missing information. Please organize data sets by date to enable easier review.

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A

University of North Carolina - Chapel Hill

Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10 SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11 AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	Inspection Date: 02/19/2019
PI PID	**Inspectors**
Inspection ID 11948	DCM Veterinarian
Inspection Type Semiannual	IACUC
Lab Coordinators :	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with , a member of the lab, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A

Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 02/22/2019
PI PID	**Inspectors**
Inspection ID 11987	
Inspection Type Semiannual	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with _____, the Laboratory Animal Coordinators (LACs), during the inspection. The inspectors reviewed humane endpoint and monitoring documentation for each of the ongoing studies during the inspection.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A

Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

Semiannual Laboratory with Procedural Inspection Reports

IACUC Inspections Details Report

PI:	**Inspection Date:** 11/05/2018
PI PID	**Inspectors**
Inspection ID 257	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to demonstrate an Bronchoalveolar Lavage as described in protocol # 16-127 without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable

During our most recent AAALAC site visit, site visitors recommended the institution provide additional guidance concerning the use of tribromoethanol (i.e., TBE or Avertin). These guidelines ensure the proper and consistent preparation, storage, and time to expiration of TBE for safe usage and will be noted during IACUC inspections. The new standard issued by the IACUC can be reviewed here:

https://research.unc.edu/files/2018/05/University-Standard-for-Tribromoethanol.pdf

Should you find that your technique differs from the IACUC standard, please amend your protocol or your technique accordingly.

Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Please ensure that all documentation for anesthetized animals (undergoing a painful procedure) indicates that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex).	No Deficiency
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

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IACUC Inspections Details Report

PI:	**Inspection Date:** 02/15/2019
PI PID	**Inspectors**
Inspection ID 277	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe non-survival perfusion as described in protocol #17-116 without the use of a live animal. The inspectors did not find any deficiencies to report, however suggestions for improvement are included in this report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area   Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA
Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	No Deficiency

Inspectors discussed the use of transparent, non-PVC containing bags to store carcasses for disposal. These bags can be obtained through DCM, and should be used when disposing of carcasses as all carcasses leave campus for incineration. Please see policy at the following URL:

http://research.unc.edu/files/2012/11/Disposal-of-Rodents-Carcasses-Policy.pdf

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable

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Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained) Inspectors suggested adding the dose for Avertin utilized for euthanasia to the current spreadsheet the lab utilizes to account for the Avertin given to animals.	No Deficiency

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species) As discussed with the lab, please reach out to DCM veterinarians to discuss post-operative analgesia utilizing Buprenorphine vs. Buprenorphine extended release , and revise protocol to reflect the frequency the drug should be utilized.	No Deficiency

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	Inspection Date: 02/06/2019
PI PID	Inspectors
Inspection ID 282	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
This inspection report serves as both the Informational and Procedural Observation (post approval monitoring) report. During the observation, were very knowledgeable and able to describe the Pain Category E anaphylactic reaction to allergen, including humane endpoints as described in protocol # 18-308, without the use of a live animal. The inspectors did not find any deficiencies to report.	

2. DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/ All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/ Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	N/A
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	N/A
Cage side chemical hazard identification training	No Deficiency
Please review your hazard forms, especially for Cholera toxin, as it indicates that the cages must be marked and handled differently than normal cages. You should contact the facility manager for details on expected cage handling based on the contents of each of your hazard forms.	
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency
Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use of isoflurane must be available to IACUC personnel. You may use the template linked below, or document in other lab logs: https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf	

6. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A

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Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:		**Inspection Date:** 02/15/2019
PI PID		**Inspectors**
Inspection ID	284	
Inspection Type	Semiannual with Procedural	
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe the non-survival BAL surgery found in protocol #18-239 without the use of a live animal. The inspectors did not find any deficiencies to report, however suggestions for improvement are included in this report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable

The IACUC recently revised the Standard on Monitoring Animals on Neuromuscular Blocking Agents (NMB). Please have all members of the laboratory working with neuromuscular blocking agents review the standard.

https://research.unc.edu/files/2012/11/Paralytics-Policy-Monitoring-Animals-which-have-received-Neuromuscular-Blocking-Agents-NMB.pdf

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	No Deficiency

The standards described within the Standard for Administered Agents provides guidance to all researchers and animal handlers administering chemical agents, whether they be pharmaceutical or non-pharmaceutical grade.

https://research.unc.edu/files/2013/10/Guidelines-for-Administered-Agents.pdf

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

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Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 03/27/2019
PI PID	**Inspectors**
Inspection ID 295	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe survival tumor cell injection found in approved protocol #18-191 without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

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PI:			Inspection Date: 10/01/2018
PI PID			**Inspectors**
Inspection ID	8637		
Inspection Type	Semiannual with Procedural		IACUC EHS
Lab Coordinators			

1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2 DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area   Acceptable
Please ensure that the LACs inspect the 24 hour contact list posted in the animal housing rooms to ensure that at least one emergency contact is provided should DCM or IACUC personnel need to contact the laboratory on weekends, holidays, and after hours.

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   Acceptable

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable

3 HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4 ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5 AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6 PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7 SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)   Acceptable
This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe non-survival perfusion for hepatocyte isolation, as described protocol # 17-214, without the use of a live animal. The inspectors did not find any deficiencies to report, however suggestions for improvement are included in this report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise)   Acceptable
according to the Guide

Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

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8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use of isoflurane must be available to IACUC personnel.	No Deficiency
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 11/09/2018
PI PID	**Inspectors**
Inspection ID 10770	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

During the observation, _____ was very knowledgeable and able to describe survival Corneal Debridement as described in #18-049 without the use of a live animal. The inspectors did not find any deficiencies to report, however suggestions for improvement are included in this report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — No Deficiency

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable
Inspectors spoke with : _____ a member of the lab, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place — No Deficiency
Inspectors noted the protective cap was not covering the eyewash. Please make sure that eyewash cover is in place so that debris does not build up and the eyewash can be used in case of emergency.

Procedures for using/scavenging volatile anesthetics; check for Fair can weight — N/A

Proper sharps disposal, hazardous waste disposal — Acceptable
New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted — Acceptable

Proper carcass disposal (especially hazard contaminated) — Acceptable

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 — Acceptable

Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) — Acceptable

Cage side chemical hazard identification training — Acceptable

Review of chemical hazard forms by laboratory personnel before initial use — Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine — Acceptable

Clinical records for individual animals (covered species) — N/A

Analgesia/anesthesia use as described in approved ACAP — Acceptable

Euthanasia performed as described in approved ACAP; tools sharp/adequate — Acceptable

Means to track animal usage/Euthanasia log — Acceptable

MONITORING DOCUMENTATION (weight, drugs, post op care, etc) — Acceptable

Toe Clip Discussion (max P10, 2 toes, approved in ACAP) — N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) — Acceptable

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) — Acceptable

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? — N/A

Proper Controlled Substance Storage and Records; double lock — No Deficiency
The lab must be able to account for DEA controlled drugs from receipt to use/waste, including amounts removed from the stock bottles to create the cocktail bottles, and from the cocktail bottle to the animal. Inspectors noted that a second log with running balance for use when Ketamine/Xylazine cocktail is removed from the diluted cocktail bottle must be implemented to comply with DEA policy

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention — Acceptable

6. PHYSICAL PLANT

Impervious surfaces — Acceptable

General cleanliness — Acceptable

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning — Acceptable

7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 11/16/2018
PI PID	**Inspectors**
Inspection ID 10772	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe non-survival Vena Cava Blood Draw as described in #18-081 without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:			**Inspection Date:** 11/16/2018
PI PID			**Inspectors**
Inspection ID	10773		
Inspection Type	Semiannual with Procedural		
Lab Coordinators			

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe non-survival Vena Cava Blood Draw as described in #17-103 without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 12/14/2018
PI PID	**Inspectors**
Inspection ID 10807	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation, [   ] was very knowledgeable and able to describe non-survival perfusion as described in protocol # 17-253 without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

Inspectors met with both   .

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	No Deficiency

Please ensure that you label secondary containers with expiration dates from the stock containers.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A

University of North Carolina - Chapel Hill

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10 SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11 AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 12/05/2018
PI PID	**Inspectors**
Inspection ID 10810	
Inspection Type Semiannual with Procedural	
Lab Coordinators :	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe survival Tumor Resection as described in protocol #18-022 without the use of a live animal. The inspectors did not find any deficiencies to report, however suggestions for improvement are included in this report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA

Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency

Please ensure that all drugs described in the protocol, and administered to animals, are documented consistently (i.e. bupivacaine administration).

6. PHYSICAL PLANT

Impervious surfaces   No Deficiency

Inspectors noted the laboratory stored the recovery cage within a card board box during the recovery period after survival surgery. All surfaces where live animals are present must be smooth, sealed, and impervious to moisture. Please utilize a container with such material to allow thorough and frequent cleaning.

General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	No Deficiency
Please ensure that all secondary containers used to store betadine, PBS or other items should be properly labeled with name, concentration (if applicable) and an expiration date.	
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 12/05/2018
PI PID	**Inspectors**
Inspection ID 10829	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable
Inspectors spoke with the PI during the inspection. This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe survival stereotaxic procedures for both mice and rats as described in protocols 18-036 and 17-256, without the use of a live animal. The inspectors identified 2 deficiencies, provided in writing to the PI via email today, and included in this report below.

Please note current designation of 'Minor' deficiency is preliminary as the IACUC makes the final designation on deficiency classification, therefore Minor may become 'Significant' or Animal Welfare Concerns following IACUC deliberation

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Minor Deficiency

During the Procedural Observation, the PI explained that the lab does not utilize bupivacaine for intraoperative analgesia as described in the approved protocol. Mice are instead provided with banamine, postoperatively. The protocol states that both bupivacaine and banamine will be used. Inspectors reminded the PI that all aspects of procedures described in the protocol must be performed as approved. If the PI wishes to remove bupivacaine from the analgesic regimen in the protocol, an amendment must first be submitted and approved, otherwise all future surgeries must include bupivacaine.

Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Minor Deficiency

Inspectors reminded the Principal Investigator (PI) that expired pharmaceuticals, including banamine, may not be used for anesthesia, analgesia, euthanasia, or acute intervention. All pharmaceuticals used for anesthesia, analgesia, euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals. During the Procedural Observation, the inspectors noted that banamine had been utilized in at least 7 animals past its expiration date. In 6 of the 7 animals, banamine was the only source of analgesia provided.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable

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Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	No Deficiency
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:

PI PID

Inspection Date: 12/18/2018

Inspectors

Inspection ID   10831

Inspection Type   Semiannual
with Procedural

Lab Coordinators

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was knowledgeable and able to describe survival Cannula Implantation as described in approved protocol #18-136, without the use of a live animal. The inspectors did note several deficiencies that will be included in this report, and suggestions for improvement are also included in this report. The next procedural observation may not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Minor Deficiency

During the Procedural Observation, the surgeon   explained that carprofen was not utilized post-operatively as described in the approved protocol, 18-136. Mice are provided with bupivacaine pre and post-operatively. The protocol states that both bupivacaine and carprofen will be used. Inspectors reminded the PI, surgeon and LAC that all aspects of procedures described in the protocol must be performed as approved. Surgeons must review the most currently approved versions of protocols to ensure that all approved aspects are performed as approved.

Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Minor Deficiency

The lab must be able to account for DEA controlled drugs from receipt to use/waste, including amounts removed from the stock bottles to create the cocktail bottles, and from the cocktail bottle to the animal. Inspectors noted that a second log with running balance for use when Ketamine/Xylazine cocktail is removed from the diluted cocktail bottle must be implemented to comply with DEA policy.

A similar comment was made on 06/22/18: Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use should be available to IACUC personnel as part of the inspection. A running balance for controlled substances must be maintained, per DEA policy. Please add this to your current documentation.

A similar comment was also made on 12/04/17: Additionally, a running balance log must be maintained for a mixture containing a controlled substance (Ketamine/Xylazine). The solution must be labeled with the drug name, date of expiration and concentration.

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Minor Deficiency

Please ensure that all documentation for anesthetized animals (undergoing a painful procedure) indicates that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex). Inspectors noted that toe pinch was not being documented for non-survival perfusions.

A similar comment was made in 12/04/17: Drug logs for all anesthetics used for surgeries or other painful procedures must have toe pinch documented.

Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	No Deficiency

Inspectors recommended adding routes of administration for the bupivicaine to be added to the logs. Currently the lab administers this topically and subcutaneously. Inspectors also requested to add time given an initials of person administering the analgesia to logs for all analgesics given.

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 01/23/2019
PI PID	**Inspectors**
Inspection ID 10855	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
This inspection report serves as both the Semiannual and Procedural Observation report. During the observation, was very knowledgeable and able to describe survival intratracheal instillationas described in approved protocol #17-291 without the use of a live animal. The inspectors did not find any deficiencies to report, however suggestions for improvement are included in this report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/ All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/ Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with the Principal Investigator (PI) and Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years. Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	No Deficiency
Principal Investigators must ensure that all experiments, treatments, or changes to procedure or personnel are approved by the IACUC before implementation. Please amend your application to describe new details and ensure that all animal handlers have reviewed your IACUC approved protocols and amendments before conducting procedures in animals.	

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	No Deficiency
Please ensure that laboratory members utilizing the bell jar for isoflurane drop method are cleaning the jar out after use.	
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	No Deficiency

Inspectors suggested adding check boxes to their surgical records for the various post-operative surgery monitoring performed by lab members.

10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:

PI PID

Inspection Date: 02/14/2019

Inspectors

Inspection ID	11866
Inspection Type	Semiannual with Procedural

Lab Coordinators

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe the non-survival Perfusion as described in protocol #16-170 without the use of a live animal. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area   Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA
Inspectors spoke with   , the Laboratory Animal Coordinators (LACs), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:		**Inspection Date:** 02/18/2019
PI PID		**Inspectors**
Inspection ID	11889	
Inspection Type	Semiannual with Procedural	
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

Inspectors spoke with the PI during the inspection. This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe non-survival perfusion procedure as described in protocol 17-008, without the use of a live animal. The inspectors had no significant suggestions for improvement and the next procedural will be required in three years.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Principal Investigator (PI), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:		**Inspection Date:** 03/21/2019
PI PID		**Inspectors**
Inspection ID	11921	IACUC
Inspection Type	Semiannual with Procedural	DCM Veterinarian
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe survival Bone Marrow Aspiration and Infusion as described in approved protocol #17-087 without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable

Inspectors spoke with   the Principal Investigator (PI) and Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	Inspection Date: 03/11/2019
PI PID	**Inspectors**
Inspection ID 11925	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted
This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe Non-survival IVC blood draw as described in protocol #17-053 without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.   Acceptable

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable
Inspectors spoke with   members of the lab, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable

University of North Carolina - Chapel Hill

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 03/15/2019
PI PID	**Inspectors**
Inspection ID 11931	
Inspection Type Semiannual with Procedural	
Lab Coordinators:	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe non-survival BAL procedure as described in protocol # 16-220 without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

16-220 contains a new procedure with use of NMB and flexivent which is conducted by the Tilley lab only. If this changes, you must contact us so that we can observe your lab personnel prior to first surgery with an animal.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The NLAC Listserv is an avenue for laboratory animal coordinators to make contacts, exchange ideas, ask questions, and make suggestions. To subscribe, send an email to NLACadmin@unc.edu with the subject "Subscribe NLAC" and include your name and a currently approved IACUC protocol number on which you are listed as personnel. Note: You must subscribe with a UNC email address. Requests from outside email providers (Yahoo, MSN, etc.) will be denied.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	No Deficiency

Inspectors discussed the use of transparent, non-PVC containing bags to store carcasses for disposal. These bags can be obtained through DCM, and should be used when disposing of carcasses as all carcasses leave campus for incineration. Please see policy at the following URL:

http://research.unc.edu/files/2012/11/Disposal-of-Rodents-Carcasses-Policy.pdf

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A

Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 02/25/2019
PI PID	**Inspectors**
Inspection ID 11971	
Inspection Type Semiannual with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe Pain Category E survival Single Prolonged Stress Test described in protocol #19-020 without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable

Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	N/A
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

Because your laboratory is responsible for the sanitation of animal related experimental/behavior testing equipment, microbiological sampling may be necessary to ensure that adequate disinfection is taking place. DCM may contact you to set up a routine sampling of your equipment.

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A

Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

Satellite Inspection

Reports

PI:	Inspection Date:	10/03/2018
PI PID	Inspectors	
Inspection ID 10827		IACUC Vet
Inspection Type Satellite		IACUC EHS
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
A team of two IACUC members inspected the inside of the BSL3 facility where the PI's animals are exposed and housed once they are infected. These members are a member of EHS and a DCM veterinarian. The next inspection will be a records review (outside the BSL3), to be conducted in January 2019, with the LAC.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	No Deficiency
The eyewash must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks. Inspectors were unable to locate the documentation for room 9061 during the inspection, so please be prepared to provide this at the next inspection.	
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	N/A

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	N/A
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	N/A
Means to track animal usage/Euthanasia log	N/A
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	N/A
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	N/A
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	N/A
General cleanliness	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A

Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source) For reference purposes, please place a copy of the currently approved protocols for all animals housed in your BSL3 space. Please ensure that these are updated as amendments and continuations are approved.	No Deficiency
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 10/15/2018
PI PID	**Inspectors**
Inspection ID 10853	
Inspection Type Satellite	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
The Inspector entered the BSL3 facility (MG only) with   during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
DCM husbandry now performs daily husbandry checks and duties during weekdays. The lab provides this care on weekends.	
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A

Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained Those providing husbandry for the animals in BSL3 should transition to a more standard DCM type husbandry log to document all required cleaning in addition to daily duties already being performed. Things like filter and slimline hose cleaning/changes, etc. need to be completed as frequently as reasonable in this specialized space. The standard DCM log can be modified from the version used in other spaces for what is feasible in the BSL3 spaces, and should be approved by the vet & AOD for BSL3.	No Deficiency
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 10/26/2018
PI PID	**Inspectors**
Inspection ID 11871	
Inspection Type Satellite	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/ All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/ Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with the Principal Investigator (PI) and the Laboratory Coordinator (LAC) for WISE, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years. Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.	
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:		**Inspection Date:** 11/26/2018
PI PID		**Inspectors**
Inspection ID	11880	
Inspection Type	Satellite	
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency

Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use of isoflurane must be available to IACUC personnel.

https://research.unc.edu/files/2012/11/Isoflurane-Drop-Method-Log-Template.pdf

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A

University of North Carolina - Chapel Hill

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained Inspectors recommended for tasks listed on the room logs that were not performed that an explanation be provided. If tasks are not required, please indicate general reasoning/dates on the records to alleviate confusion (i.e. no animals present).	No Deficiency
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually) Husbandry logs indicate that on several days, humidity levels were outside the acceptable range of 30-70%. Out of range values should be notated with an "*" on the husbandry logs and the lab should contact facilities to correct the issues as they are identified. No animal health issues related to these changes were reported.	No Deficiency
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness) The satellite facility is not currently using any pest control method. The lab must begin using some form of pest control such as sticky traps that are checked and replaced regularly. Please contact Courtney Nesline to obtain sticky traps for the room. Inspectors also recommended the lab place a live rodent trap within the room and document monitoring of the trap within the room on a daily basis.	No Deficiency
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:		Inspection Date: 11/08/2018
PI PID		Inspectors
Inspection ID 11882		
Inspection Type Satellite		
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
2. DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
3. HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
4. ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A
5. AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable
6. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A

Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained Inspection conducted inside BSL3 with LAC and DCM.	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 11/28/2018
PI PID	**Inspectors**
Inspection ID 11899	IACUC
Inspection Type Satellite	
Lab Coordinators	

1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2 DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , a laboratory member, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3 HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4 ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5 AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable

Inspectors reminded the laboratory member that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention. Additionally, medical materials (e.g., suture, saline) used during survival procedures may not be expired. All pharmaceuticals used for anesthesia, analgesia, euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6 PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7 SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8 SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file? Please ensure that the 2019 North Carolina Xenopus permit is in place prior to January 2019. Contact Dr. Allison Rogala, DCM Veterinarian, via e-mail: arrogala@email.unc.edu or phone: (919) 966-2901 with any questions regarding obtaining this permit.	No Deficiency
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	Acceptable
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	Acceptable
Temperature/humidity values recorded	Acceptable
Equipment properly sanitized, separation based on health status	Acceptable
Tank allows for undisturbed observation, enrichment present	Acceptable
Personnel trained in H2O quality, animal health monitoring	Acceptable
How is MS222 prepared for use?	Acceptable

PI:
PI PID

Inspection ID 11928	
Inspection Type Satellite	
Lab Coordinators	

Inspection Date: 12/18/2018
Inspectors
IACUC·

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material" labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	N/A
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	Acceptable
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	Acceptable
Temperature/humidity values recorded	Acceptable
Equipment properly sanitized, separation based on health status	Acceptable
Tank allows for undisturbed observation, enrichment present	Acceptable
Personnel trained in H2O quality, animal health monitoring	Acceptable
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 12/18/2018
PI PID	**Inspectors**
Inspection ID 11930	
Inspection Type Satellite	IACUC Vet
Lab Coordinators	IACUC Vet

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	N/A
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	N/A
Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	No Deficiency
Inspectors discussed the need to dispose of carcasses using transparent, non-PVC containing bags to store carcasses for disposal. These bags can be obtained through DCM, and should be used when disposing of carcasses. Carcasses should then be deposited in the Berryhill carcasses cooler.	
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	N/A
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

University of North Carolina - Chapel Hill

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained Documentation for duties such as animal feeding, sand changes, and room maintenance continue to remain inconsistent. These duties should be performed according to schedule and documentation maintained. A similar comment was made during a prior inspection on 08/08/2017: "Inspectors noted that "Every other week sanitation" was not documented consistently on husbandry logs. Please ensure that these duties are performed according to schedule and documentation is maintained."	Minor Deficiency
Veterinary contact info visably posted	Acceptable

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	Acceptable
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	Acceptable
Temperature/humidity values recorded	Acceptable
Equipment properly sanitized, separation based on health status	Acceptable
Tank allows for undisturbed observation, enrichment present	Acceptable
Personnel trained in H2O quality, animal health monitoring	Acceptable
How is MS222 prepared for use?	Acceptable

PI:		**Inspection Date:** 12/12/2018
PI PID		**Inspectors**
Inspection ID	11944	
Inspection Type	Satellite	
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable

2. DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	N/A
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	N/A
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	N/A
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	N/A
Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	N/A
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	N/A
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	N/A
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	N/A

4. ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	N/A
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	N/A
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	N/A
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT	
Impervious surfaces	N/A
General cleanliness	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A

University of North Carolina - Chapel Hill

Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	Acceptable
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	Acceptable
Temperature/humidity values recorded	Acceptable
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	Inspection Date:	01/28/2019
PI PID	Inspectors	
Inspection ID 11974		
Inspection Type Satellite		DCM
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted
This inspection covers both the WISE space inspection, conducted on 1/25/19 with   as well as the Burmeister inspection conducted with the PI and new LAC,   on 1/28/19.

Acceptable

All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area Please ensure that all new LACs are added to room signage with contact information as needed.	No Deficiency
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/ All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/ Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	N/A
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	N/A
Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	N/A

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	N/A
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	N/A
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	N/A
General cleanliness	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A

Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU Please ensure that all applicable satellite SOPs and Disaster plans are up to date in the satellite notebooks.	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted For fish work, please contact Emily Weston to arrange an inspection prior to the placement of the new species in the Burmeister room.	Acceptable

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring Please ensure that adequate husbandry & water quality documentation is maintained for the new species being added to the Burmeister room.	Acceptable
How is MS222 prepared for use?	N/A

PI:

PI PID
Inspection ID 12007
Inspection Type Satellite
Lab Coordinators

Inspection Date: 02/25/2019
Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	N/A
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 03/19/2019
PI PID	**Inspectors**
Inspection ID 12022	IACUC Vets
Inspection Type Satellite	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

Inspectors spoke with _____ , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU Please update and submit to OACU as soon as possible.	No Deficiency
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	Acceptable
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	Acceptable
Temperature/humidity values recorded	Acceptable
Equipment properly sanitized, separation based on health status	Acceptable
Tank allows for undisturbed observation, enrichment present	Acceptable
Personnel trained in H2O quality, animal health monitoring	Acceptable
How is MS222 prepared for use?	Acceptable

PI:

PI PID

Inspection Date: 03/21/2019

Inspectors

Inspection ID 12033
Inspection Type Satellite
Lab Coordinators

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	N/A
Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	N/A
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	N/A
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	N/A
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	N/A
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	N/A
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	N/A
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	N/A
General cleanliness	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A

Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU Please submit the updated Disaster plan and SOP if you have not already included an Essential member to the EHS or HR lists for Condition 2 & 3.	No Deficiency
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	Acceptable
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	Acceptable
Temperature/humidity values recorded	Acceptable
Equipment properly sanitized, separation based on health status	Acceptable
Tank allows for undisturbed observation, enrichment present	Acceptable
Personnel trained in H2O quality, animal health monitoring	Acceptable
How is MS222 prepared for use?	Acceptable

PI:

PI PID

Inspection ID 12034

Inspection Type Satellite

Lab Coordinators

Inspection Date: 03/22/2019

Inspectors

IACUC Vet

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted

Inspectors spoke with the PI and _____ the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Acceptable

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	N/A
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	N/A
Means to track animal usage/Euthanasia log	N/A
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	N/A
General cleanliness	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A

Proper anesthetics, doses, routes of anesthesia (records maintained) — N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	Acceptable
Animal identification posted (PI, ACAP ID #, species, source)	Acceptable
Changes in environment since last inspection (noise, illumination, vibration, etc)	Acceptable
Disaster plan in place, annual review, updates since last provided to OACU	Acceptable
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/ Aquired new animals? Source? Permits on file? Please ensure that the current year's permits are sent to OACU for filing with the protocol.	No Deficiency
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visably posted	Acceptable

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

Informational Inspection Reports

IACUC Inspections Details Report

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PI:		**Inspection Date:** 02/22/2019
PI PID		**Inspectors**
Inspection ID 144		
Inspection Type Informational		
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The inspector spoke with   , the PI and Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	N/A
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	N/A
Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	N/A
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	N/A
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	No Deficiency

During our most recent AAALAC site visit, site visitors recommended the institution provide additional guidance concerning the use of tribromoethanol (i.e., TBE or Avertin). These guidelines ensure the proper and consistent preparation, storage, and time to expiration of TBE for safe usage and will be noted during IACUC inspections. The new standard issued by the IACUC can be reviewed here:
University Standard for Preparation Storage and Use of Tribromoethanol : https://research.unc.edu/files/2018/05/University-Standard-for-Tribromoethanol.pdf

Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency

Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use of isoflurane/avertin must be available to IACUC personnel.

Templates available here:
https://research.unc.edu/files/2012/11/Drug-Log-Template.pdf

https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf

https://research.unc.edu/files/2012/11/Isoflurane-Drop-Method-Log-Template.pdf

6. PHYSICAL PLANT

Impervious surfaces	N/A
General cleanliness	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A

Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	Inspection Date: 10/08/2018
PI PID	**Inspectors**
Inspection ID 259	
Inspection Type Informational	
Lab Coordinators:	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   the Principal Investigator (PI), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

University of North Carolina - Chapel Hill

IACUC Inspections Details Report

PI:
PI PID
Inspection ID 263
Inspection Type Informational
Lab Coordinators

Inspection Date: 11/14/2018
Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

Based on conversation with   today, we learned that the only animal procedures conducted in your lab space (outside of DCM space) are non-survival tissue harvests after euthanasia. This procedure doesn't actually warrant a semiannual inspection of your lab space so we are changing you over to an Informational Inspection schedule instead.

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (http://research.unc.edu/offices/iacuc/index.htm). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area   Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA
Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place   Acceptable

Procedures for using/scavenging volatile anesthetics; check for Fair can weight   Acceptable

Proper sharps disposal, hazardous waste disposal   Acceptable
New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted   Acceptable

Proper carcass disposal (especially hazard contaminated)   No Deficiency
Inspectors discussed the use of transparent, non-PVC containing bags to store carcasses for disposal. These bags can be obtained through DCM, and should be used when disposing of carcasses as all carcasses leave campus for incineration. Please see policy at the following URL:

http://research.unc.edu/files/2012/11/Disposal-of-Rodents-Carcasses-Policy.pdf

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119   Acceptable

Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)   Acceptable

Cage side chemical hazard identification training   N/A

Review of chemical hazard forms by laboratory personnel before initial use   Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine   Acceptable

Clinical records for individual animals (covered species)   N/A

Analgesia/anesthesia use as described in approved ACAP   Acceptable

Euthanasia performed as described in approved ACAP; tools sharp/adequate   Acceptable

Means to track animal usage/Euthanasia log   Acceptable

MONITORING DOCUMENTATION (weight, drugs, post op care, etc)   Acceptable

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)   Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) Acceptable

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)   Acceptable

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?   N/A

Proper Controlled Substance Storage and Records; double lock   N/A

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention   No Deficiency
Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use of isoflurane must be available to IACUC personnel.

https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf

6. PHYSICAL PLANT

University of North Carolina - Chapel Hill

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 11/09/2018
PI PID	**Inspectors**
Inspection ID 264	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area   Acceptable
Please ensure that the LAC inspects the 24 hour contact list posted in the animal housing rooms to ensure that at least one emergency contact is provided should DCM or IACUC personnel need to contact the laboratory on weekends, holidays, and after hours.

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   Acceptable
Should you need additional copies of lab postings, you can access the most recent version of the required postings from our website:
http://research.unc.edu/iacuc/compliance/

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A

Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:		Inspection Date: 11/16/2018
PI PID		Inspectors
Inspection ID 265		
Inspection Type Informational		
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

Inspectors spoke with the PI and the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	N/A
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	N/A
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

University of North Carolina - Chapel Hill

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

<table>
<tr><td>PI:</td><td>Inspection Date: 12/17/2018</td></tr>
<tr><td>PI PID</td><td>Inspectors</td></tr>
<tr><td>Inspection ID   268</td><td></td></tr>
<tr><td>Inspection Type   Informational</td><td></td></tr>
<tr><td>Lab Coordinators</td><td></td></tr>
</table>

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

Based on conversation with   today, we learned that the only animal procedures conducted in your lab space (outside of DCM space) are non-survival tissue harvests after euthanasia. This procedure doesn't actually warrant a semiannual inspection of your lab space so we are changing you over to an informational inspection schedule instead. This informational inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (http://research.unc.edu/offices/iacuc/index.htm). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable

Inspectors spoke with   the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place — No Deficiency

The eyewash must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks.

Procedures for using/scavenging volatile anesthetics; check for Fair can weight — Acceptable

Proper sharps disposal, hazardous waste disposal — Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted — Acceptable

You can access the most recent version of the Needle Safety in Animal Studies posting from our website: https://research.unc.edu/files/2012/11/NEEDLE-SAFETY-IN-ANIMAL-STUDIES-2013.pdf

Proper carcass disposal (especially hazard contaminated) — Acceptable

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 — Acceptable

Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) — Acceptable

Cage side chemical hazard identification training — No Deficiency

DCM has a card system in place that requires researchers that treat their animals with hazards that could pose any health risk to DCM to mark those cages for a period of time after dosing. You must contact the Facility Manager where your animals are housed and dosed with Tamoxifen and BRDU so they can properly train your lab in the use of this card system. http://research.unc.edu/files/2015/02/Handling-Animals-Dosed-with-Chemical-Hazards.pdf

Review of chemical hazard forms by laboratory personnel before initial use — Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine — Acceptable

Clinical records for individual animals (covered species) — N/A

Analgesia/anesthesia use as described in approved ACAP — No Deficiency

When utilizing the Isoflurane drop method, the animal may not come into contact with the Isoflurane soaked material as it can damage the animals' skin. Please improve upon the system currently being used in the lab's procedure room as it does not provide adequate separation.

Euthanasia performed as described in approved ACAP; tools sharp/adequate — Acceptable

Means to track animal usage/Euthanasia log — Acceptable

MONITORING DOCUMENTATION (weight, drugs, post op care, etc) — Acceptable

Toe Clip Discussion (max P10, 2 toes, approved in ACAP) — Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) — Acceptable

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) — Acceptable

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? — N/A

Proper Controlled Substance Storage and Records; double lock — N/A

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention — N/A

6. PHYSICAL PLANT

Impervious surfaces — Acceptable

General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 10/26/2018
PI PID	**Inspectors**
Inspection ID 289	
Inspection Type Informational	
Lab Coordinators :	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This Informational inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

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Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable

Inspectors spoke with   , the Principal Investigator (PI), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	N/A
General cleanliness	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 03/18/2019
PI PID	**Inspectors**
Inspection ID 294	
Inspection Type Informational	
Lab Coordinators:	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.	

2. DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/	
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Inspectors spoke with ____, the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT	
Impervious surfaces	N/A
General cleanliness	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A

Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 12/06/2018
PI PID	**Inspectors**
Inspection ID 2396	
Inspection Type Informational	
Lab Coordinators:	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

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All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , a laboratory member, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	No Deficiency

Inspectors discussed the use of transparent, non-PVC containing bags to store carcasses for disposal. These bags can be obtained through DCM, and should be used when disposing of carcasses as all carcasses leave campus for incineration. Please see policy at the following URL:

http://research.unc.edu/files/2012/11/Disposal-of-Rodents-Carcasses-Policy.pdf

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A

Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:
PI PID
Inspection ID 6520
Inspection Type Informational
Lab Coordinators

Inspection Date: 11/13/2018
Inspectors

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

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All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8 SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10 SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11 AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 10/08/2018
PI PID	**Inspectors**
Inspection ID 6524	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This Informational inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   , a member of the lab, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A

Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 11/05/2018
PI PID	**Inspectors**
Inspection ID 7583	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

Inspectors spoke with _____, a Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:		Inspection Date: 10/08/2018
PI PID		Inspectors
Inspection ID	9734	
Inspection Type	Informational	
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time

This Informational inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area   Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA
Inspectors spoke with ,   , the Principal Investigator (PI), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place   Acceptable

Procedures for using/scavenging volatile anesthetics; check for Fair can weight   N/A

Proper sharps disposal, hazardous waste disposal   N/A
New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted   N/A

Proper carcass disposal (especially hazard contaminated)   N/A

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119   Acceptable

Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)   Acceptable

Cage side chemical hazard identification training   N/A

Review of chemical hazard forms by laboratory personnel before initial use   Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine   Acceptable

Clinical records for individual animals (covered species)   N/A

Analgesia/anesthesia use as described in approved ACAP   N/A

Euthanasia performed as described in approved ACAP; tools sharp/adequate   N/A

Means to track animal usage/Euthanasia log   N/A

MONITORING DOCUMENTATION (weight, drugs, post op care, etc)   N/A

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)   N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)   N/A

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)   N/A

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?   N/A
During our most recent AAALAC site visit, site visitors recommended the institution provide additional guidance concerning the use of tribromoethanol (i.e., TBE or Avertin). These guidelines ensure the proper and consistent preparation, storage, and time to expiration of TBE for safe usage and will be noted during IACUC inspections. The new standard issued by the IACUC can be reviewed here:
https://research.unc.edu/files/2018/05/University-Standard-for-Tribromoethanol.pdf

Should you find that your technique differs from the IACUC standard, please amend your protocol or your technique accordingly.

Proper Controlled Substance Storage and Records; double lock   N/A

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention   N/A

6. PHYSICAL PLANT

Impervious surfaces   N/A

General cleanliness   N/A

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning   N/A

7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:		Inspection Date: 10/11/2018
PI PID		Inspectors
Inspection ID 9747		
Inspection Type Informational		
Lab Coordinators		

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable

Inspectors reminded the LAC that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention. Additionally, medical materials (e.g., suture, saline) used during survival procedures may not be expired. All pharmaceuticals used for anesthesia, analgesia, euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable

During our most recent AAALAC site visit, site visitors recommended the institution provide additional guidance concerning the use of tribromoethanol (i.e., TBE or Avertin). These guidelines ensure the proper and consistent preparation, storage, and time to expiration of TBE for safe usage and will be noted during IACUC inspections. The new standard issued by the IACUC can be reviewed here: https://research.unc.edu/files/2018/05/University-Standard-for-Tribromoethanol.pdf

Should you find that your technique differs from the IACUC standard, please amend your protocol or your technique accordingly.

Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable

Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:
                                                              Inspection Date: 12/07/2018

PI PID

Inspection ID   10775   **Inspectors**

Inspection Type   Informational

Lab Coordinators

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

This inspection covers only work conducted by the research lab group for this PI, and did not cover MMRRC operations. The next inspection will cover MMRRC group animal work.

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A

Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 11/13/2018
PI PID	**Inspectors**
Inspection ID 10777	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for re-certification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	No Deficiency

Please ensure that all animal handlers are aware of the UNC-IACUC Policy on Rodent Toe Clipping and that toe clipping is only performed on protocols where the technique is included in sections 5.8.4 and 6.0.1.

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	Acceptable

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Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 12/05/2018
PI PID	**Inspectors**
Inspection ID 10822	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/. If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable

Please ensure that the LACs inspect the 24 hour contact list posted in the animal housing rooms to ensure that at least one emergency contact is provided should DCM or IACUC personnel need to contact the laboratory on weekends, holidays, and after hours.

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable

Inspectors reminded the LAC that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention. Additionally, medical materials (e.g., suture, saline) used during survival procedures may not be expired. All pharmaceuticals used for anesthesia, analgesia, euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 02/22/2019
PI PID	**Inspectors**
Inspection ID 11861	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

Inspectors spoke with the all three members of the lab/protocol during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area   Acceptable
You may join the NLAC listserve and find more information here: https://research.unc.edu/nlac/

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   N/A
Please send me your Campus Box so I can mail you some postings for the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

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https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	N/A
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	N/A
Current copy of Needle Safety in Animal Studies posted	N/A
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	N/A
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A

6. PHYSICAL PLANT

Impervious surfaces	N/A
General cleanliness	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 02/14/2019
PI PID	**Inspectors**
Inspection ID 11870	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This informational inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with   the Principal Investigator (PI), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

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PI:	Inspection Date: 10/15/2018
PI PID	**Inspectors**
Inspection ID 11907	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
Inspectors spoke with   , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	No Deficiency

The IACUC has instituted guidelines in for post-operative monitoring at the cage side level. Use of the pink Post-Procedure Monitoring and Analgesia Card has been implemented and is required for all cages receiving analgesia and/or post-operative monitoring. The cards are available in the DCM facilities. This does not take the place of post-operative monitoring records that should be readily available to the IACUC during laboratory inspections.

https://research.unc.edu/files/2017/02/Informational-Memo-March-2017.pdf

https://research.unc.edu/files/2017/02/Post-Procedure-Monitoring-card-FINAL-2017.pdf

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable

This inspection report serves as both the Semiannual and Procedural Observation report. During the observation,   was very knowledgeable and able to describe survival ligature model as described in protocol # 16-024 without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 11/16/2018
PI PID	**Inspectors**
Inspection ID 11942	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

Inspectors spoke with   during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	N/A
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	No Deficiency

Please ensure that any MS222 stock being utilized has not past its expiration date.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable

All products used within live animals must be pharmaceutical or veterinary grade, unless otherwise approved onto a protocol.

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A

Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 10/02/2018
PI PID	**Inspectors**
Inspection ID 11947	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

This informational inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with ___, the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4). For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable

Inspectors reminded the LAC that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention. Additionally, medical materials (e.g., suture, saline) used during survival procedures may not be expired. All pharmaceuticals used for anesthesia, analgesia, euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency

Inspectors noted that isoflurane documentation was sometimes incomplete within the laboratory's anesthesia log book. Specifically, the date that anesthesia was administered, lack of toe pinch response, and percentage of isoflurane administered should be completed for each anesthesia record. The LAC also indicated that each lab member keeps isoflurane records within their laboratory notebook. In the future, please ensure that these records are also available for review at the time of the inspection.

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

Informational with Procedural Inspection Reports

PI:	**Inspection Date:** 09/28/2018
PI PID	**Inspectors**
Inspection ID 6516	
Inspection Type Informational	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This inspection report serves as both the Informational and Procedural Observation (post approval monitoring) report. During the observation, was very knowledgeable and able to describe survival intrapancreatic injection as described in protocol #17-064, without the use of a live animal. The inspectors did not find any deficiencies to report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable

Inspectors spoke with   , the Principal Investigator (PI), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place — N/A

Procedures for using/scavenging volatile anesthetics; check for Fair can weight — N/A

Proper sharps disposal, hazardous waste disposal — Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted — Acceptable

Proper carcass disposal (especially hazard contaminated) — Acceptable

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 — Acceptable

Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) — Acceptable

Cage side chemical hazard identification training — Acceptable

Review of chemical hazard forms by laboratory personnel before initial use — Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine — Acceptable

Clinical records for individual animals (covered species) — N/A

Analgesia/anesthesia use as described in approved ACAP — Acceptable

Euthanasia performed as described in approved ACAP; tools sharp/adequate — Acceptable

Means to track animal usage/Euthanasia log — Acceptable

MONITORING DOCUMENTATION (weight, drugs, post op care, etc) — Acceptable

Toe Clip Discussion (max P10, 2 toes, approved in ACAP) — N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) — Acceptable

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) — Acceptable

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? — N/A

Proper Controlled Substance Storage and Records; double lock — No Deficiency

Inspectors reminded the laboratory that all working solutions must be labeled with an expiration date, in addition to the drug name(s) and concentrations.

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention — Acceptable

6. PHYSICAL PLANT

Impervious surfaces — Acceptable

General cleanliness — Acceptable

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning — N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery) — Acceptable

Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Inspections Details Report

PI:	**Inspection Date:** 11/08/2018
PI PID	**Inspectors**
Inspection ID 7573	
Inspection Type Informational with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted   Acceptable
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspection, will be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprised of all issues, updated policies & procedures, upcoming events, etc. We thank you for your time.

This inspection report serves as both the Informational and Procedural Observation report. During the observation   was very knowledgeable and able to describe survival Bacterial Infection of Intestinal Sections as described in approved protocol #18-175 without the use of a live animal. The inspector noted multiple deficiencies that are outlined int he report below. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area   Acceptable

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted   Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:
https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd   Acceptable
unless USDA or DoD/VA

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research   Acceptable
Inspectors spoke with | the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A

Analgesia/anesthesia use as described in approved ACAP   Minor Deficiency
The inspector reminded the LAC that the use of anesthetics not currently listed on an approved protocol can not be utilized for non-survival surgeries. If utilizing ketamine or xylazine for future surgeries, please submit an amendment to add to the approved protocol.

Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)   Minor Deficiency
The inspector reminded the LAC that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention. All pharmaceuticals used for anesthesia, analgesia, euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals.

The laboratory must replace its expired stock of ketamine and xylazine if they will be utilized in future surgeries.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention   No Deficiency
Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use of isoflurane, including the vaporizers located within DCM facilities, must be available to IACUC personnel.

https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use of isoflurane, including the vaporizers located within DCM facilities, must be available to IACUC personnel. https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf	No Deficiency
Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Please ensure that all documentation for anesthetized animals (undergoing a painful procedure) indicates that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex).	No Deficiency
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 11/26/2018
PI PID	**Inspectors**
Inspection ID 7578	
Inspection Type Informational with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

Inspectors spoke with the Laboratory Animal Coordinators (LAC), during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	No Deficiency

Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Documentation must include each administration of pre and post-operative pain management, including bupivicaine. If the approved procedure does not require bupivicaine, please indicate N/A for that procedure on the surgery log. If the protocol indicates that bupivicaine will be utilized, it must be provided to the animals and documented accordingly.

If the lab utilizes the pink Post-Procedure Monitoring and Analgesia as the only analgesia record, the card must be kept for the life of the protocol and 3 years after work on the protocol has been completed.

If an animal is removed from the study prior to completion of post-operative monitoring, please indicate this on the post-operative monitoring documentation. This will clarify instances where all observations/dosing are not performed as described in the protocol.

Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	No Deficiency

Please ensure that toe clipping is described in section 5.8 of the protocol prior to performing this technique. Once added, please ensure that all animal handlers are aware of the UNC-IACUC Policy on Rodent Toe Clipping, and understand that no more than 2 toes per paw may be removed and that toe clips MUST be performed on or before the animal reaches 10 days of age.

University Standard for Rodent Identification

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	No Deficiency

During our most recent AAALAC site visit, site visitors recommended the institution provide additional guidance concerning the use of tribromoethanol (i.e., TBE or Avertin). These guidelines ensure the proper and consistent preparation, storage, and time to expiration of TBE for safe usage and will be noted during IACUC inspections. The new standard issued by the IACUC can be reviewed here:
University Standard for Preparation Storage and Use of Tribromoethanol

Should you find that your technique differs from the IACUC standard, please amend your protocol or your technique accordingly.

Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	No Deficiency
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 02/25/2019
PI PID	**Inspectors**
Inspection ID 9689	
Inspection Type Informational with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

Inspectors spoke with   , the PI and Laboratory Animal Coordinator (LAC), during the inspection.

This inspection report serves as both the Informational and Procedural Observation (post approval monitoring) report. During the observation,   was very knowledgeable and able to describe the survival carotid balloon injury model surgery as described in protocol # 16-254 and 18-188, without the use of a live animal. The inspectors did not find any deficiencies to report.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	N/A
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	Acceptable
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 12/13/2018
PI PID	**Inspectors**
Inspection ID 10805	
Inspection Type Informational with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable

This inspection report serves as both the Informational and Procedural Observation report. During the observation, was very knowledgeable and able to describe survival Myocardial Infarction model as described under protocol #18-204 without the use of a live animal. The inspectors did not find any deficiencies to report, however suggestions for improvement are included in this report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

This Informational inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	Acceptable

Inspectors spoke with the Laboratory Animal Coordinator (LAC), and a Survival Surgeon in the laboratory, during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable

New Chemical Waste Labeling: Just a reminder that on March 1st, 2018 UNC EHS instituted new labeling requirements for lab chemical waste as part of updated EPA regulations ("Subpart K"). All labs should be using the new chemical waste ("Unwanted Material") labels. The updated labels may be printed using a template from the EHS website (2x3 or 4x4).   For more information about the changes, the Laboratory Waste Management Plan (Chapter 12 of the Laboratory Safety Manual) is the EHS guidance document for EPA compliance and Subpart K. If you have any questions about the new labeling requirements please contact EHS.

Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

6. PHYSICAL PLANT

Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery Prior to surgery, the laboratory initially sterilizes instruments used in survival surgeries via autoclaving. The lab is currently using alcohol to sterilize instruments between animals which is not an effective sterilant for surgical instruments. Inspectors suggested using a hot bead sterilizer to sterilize instrument tips between animals. Please review the IACUC 'Rodent Survival Surgeries' standard operating procedure at the link below and modify the aseptic techniques followed by lab members accordingly. http://research.unc.edu/files/2012/11/Guidelines-for-Aseptic-Technique-for-Rodent-Survival-Surgeries.pdf	No Deficiency
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area Per the UNC IACUC Standard for **Aseptic Technique in Rodent Survival Surgeries**, preparation of rodent skin prior to surgery should be performed as follows: Prepare the surgical site by using alternating applications of skin antiseptics such as ethyl or isopropyl alcohol, followed by an Iodophor solution or Chlorhexidine scrub (Solution = 10%, scrub = 7.5%). Using sterile cotton tipped applicators or gauze, start with the first alcohol application. Starting in the center of the incision site, spiral outward in concentric circles toward the margins of the prepared area (never go back and forth over a cleansed area with the same gauze). Follow the alcohol application with the first Iodophor or Chlorhexadine application repeating the concentric circle pattern. Repeat the alcohol and Iodophor or Chlorhexidine step for a total of three times each. Use a new gauze or cotton tipped applicator for each application.	No Deficiency
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	Acceptable

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 03/25/2019
PI PID	**Inspectors**
Inspection ID 10828	
Inspection Type Informational with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted — Acceptable
Inspectors spoke with the PI during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientation must be renewed every 3 years.

Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area — No Deficiency
Please ensure that the LACs inspect the 24 hour contact list posted in the animal housing rooms to ensure that at least one emergency contact is provided should DCM or IACUC personnel need to contact the laboratory on weekends, holidays, and after hours.

Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted — Acceptable

All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA — Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures/

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research — Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place — Acceptable

Procedures for using/scavenging volatile anesthetics; check for Fair can weight — Acceptable

Proper sharps disposal, hazardous waste disposal — Acceptable

Current copy of Needle Safety in Animal Studies posted — Acceptable

Proper carcass disposal (especially hazard contaminated) — No Deficiency
Inspectors discussed the use of transparent, non-PVC containing bags to store carcasses for disposal. These bags can be obtained through DCM, and should be used when disposing of carcasses as all carcasses leave campus for incineration. All bags must be labelled with the protocol number.

Please see Standard at the following URL:

http://research.unc.edu/files/2012/11/Disposal-of-Rodents-Carcasses-Policy.pdf

Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 — Acceptable

Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) — N/A

Cage side chemical hazard identification training — N/A

Review of chemical hazard forms by laboratory personnel before initial use — Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine — Acceptable

Clinical records for individual animals (covered species) — N/A

Analgesia/anesthesia use as described in approved ACAP — Acceptable

Euthanasia performed as described in approved ACAP; tools sharp/adequate — Acceptable

Means to track animal usage/Euthanasia log — Acceptable

MONITORING DOCUMENTATION (weight, drugs, post op care, etc) — N/A

Toe Clip Discussion (max P10, 2 toes, approved in ACAP) — N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) — No Deficiency
Inspectors reminded the PI that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention.

Additionally, medical materials (e.g., suture, saline, iodine, eye lubricant) used during survival procedures may not be expired.

All pharmaceuticals used for anesthesia, analgesia, euthanasia, or acute intervention in animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use in animals.

Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) — Acceptable

Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? — N/A

Proper Controlled Substance Storage and Records; double lock — N/A

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention — No Deficiency
Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the approved application. Logs documenting use of isoflurane (including drop method) must be available to IACUC personnel.
Templates can be found here:
https://research.unc.edu/files/2012/11/Isoflurane-Drop-Method-Log-Template.pdf
https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf

6. PHYSICAL PLANT

Impervious surfaces — Acceptable

General cleanliness — Acceptable

University of North Carolina - Chapel Hill

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A

7. SURGICAL PROCEDURES: General Considerations

Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A

8. SURGICAL PROCEDURES: Anesthesia

Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures

Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	N/A
Preparation of sterile incision site and surrounding area	N/A
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	N/A
Proper recovery monitoring	N/A
Records of postoperative care including analgesia agents (all species)	N/A

10. SATELLITE FACILITIES

Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A

11. AQUATIC FACILITIES

Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

PI:	**Inspection Date:** 01/25/2019
PI PID	**Inspectors**
Inspection ID 10860	
Inspection Type Informational with Procedural	
Lab Coordinators	

1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY

Summary Conducted	Acceptable

This informational inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive procedures within the lab space, we must be contacted so that we can visit the space semiannually.

This inspection report serves as both the Informational and Procedural Observation report. During the observation, the new LAC, was very knowledgeable and able to demonstrate an KPC orthotopic cancer model survival surgery as described in protocol # 17-075 without the use of a live animal. The inspectors noted several minor issues with the protocol and documentation, detailed later in this report. The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.

The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/

All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/iacuc/policies-procedures

Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.

2. DOCUMENTATIONS and POSTINGS

Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd unless USDA or DoD/VA	No Deficiency

The new LAC, must be added to the surgical section of the protocols prior to performing survival surgeries. Please include all surgeons in Section 1, with the role of 'survival surgeon' and in Section 5.2 and 5.3 as needed.

Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable

3. HEALTH AND SAFETY

Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Proper sharps disposal, hazardous waste disposal	Acceptable
Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal (especially hazard contaminated)	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable

4. ANIMAL CARE

Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	No Deficiency

Please ensure that all analgesia is clarified within the protocol by submitting an amendment - beofre any further survival surgeries are performed. Each different surgery should include a description of which analgesia is to be used, both pre and post operatively. Currently it is not easy to follow, and inspectors had difficulty determining which was required.

Additionally, one of the drugs listed, buprenorphine, requires a DEA Controlled substance licence to purchase, so arrangements must be made prior to the surgeries for adequate analgesic administration, according to the approved protocol.

Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Means to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A

5. AGENTS ADMINISTERED

Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	No Deficiency

If the laboratory plans to continue to include Buprenorphine in the revised protocol, the lab/PI will need to obtain a DEA licence. This process is outlined in the document below, and can take several months to complete.

https://research.unc.edu/files/2013/03/CCM3_039065.pdf

Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable

For some survival surgeries there is inadequate documentation for post operative analgesia, and the LAC was not sure who had given the drug, and which drug had been given.

For some surgeries, there was not adequate documentation for Isoflurane use. Every administration of Isoflurane by vaporizer must include the start and stop time, and documentation of toe pinch prior to painful procedure.

For Isoflurane drop method, isoflurane usage and the procedure performed must be documented.

Anytime Isoflurane is used in animals, it must be documented, regardless of the source or procedure (includeing IVIS imaging, euthanasia, surgery, etc.).

https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf

https://research.unc.edu/files/2012/11/Isoflurane-Drop-Method-Log-Template.pdf

6. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
7. SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	No Deficiency
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	No Deficiency
Procedures for administering and monitoring analgesia (survival surgery)	No Deficiency
Proper anesthetics, doses, routes of anesthesia (records maintained)	No Deficiency
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery	No Deficiency

Please ensure that all items used for survival surgery are labeled with an expiration date and are not used after that date. Items that are expired must be labeled ' expired - for acute use only' or discarded so they are not accidentally used in live animal procedures.

Betadine secondary container must be labeled with expiration date form original container.

Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes	Acceptable
Preparation of sterile incision site and surrounding area	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Proper recovery monitoring	Acceptable
Records of postoperative care including analgesia agents (all species)	No Deficiency
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained	N/A
Animal identification posted (PI, ACAP ID #, species, source)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual review, updates since last provided to OACU	N/A
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A
Veterinary contact info visably posted	N/A
11. AQUATIC FACILITIES	
Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
Temperature/humidity values recorded	N/A
Equipment properly sanitized, separation based on health status	N/A
Tank allows for undisturbed observation, enrichment present	N/A
Personnel trained in H2O quality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A

IACUC Records and Reporting

Category E Protocols

October 2018 - April 2019

IACUC ID	Last Name	First Name	TITLE	SPECIES	Cat E Adults
17-044.0			Combating Deadly Gram-negative Lung Infections: An Inhalation and Systems Approach	Rabbit	18
17-047.0			Therapeutic applications of highly engineered delivery agents	Mouse	2148
17-076.0			Respiratory Virus infection of Wild-type and CFTR-null rabbits	Rabbit	21
18-027.0			Evaluation of the Interaction between the Host Immune Response, Gram-negative Bacteria, and Antibiotics using a Guinea Pig Lung Infection Model	Guinea Pig	388
18-231.0			Gene therapy for MPS II	Mouse	330
18-237.0			Gene therapy for treating MPS I	Mouse	330
18-244.0			Antibody-mediated trapping of pathogens in gastrointestinal mucus	Mouse	1296
18-246.0			Immune Modulation in Neuroinflammatory EAE model of Multiple Sclerosis	Mouse	15950
18-260.0			Assessing Gene therapy approaches for MPS IIIB	Mouse	550
18-261.0			Gene Therapy for MPS IIIA	Mouse	528
18-266.0			Colitis induced by immune response to luminal bacteria	Mouse	100
18-267.0			Role of chemokine receptors in autoimmune arthritis	Mouse	1880
18-270.0			Mitochondrial p32 and p17 Regulation of the MDM2-p53 Tumor Suppression pathway	Mouse	48
18-280.0			Effects of inflammation on antiviral T cell responses	Mouse	10150
18-283.0			Mapping Circuits and Neuromodulation in Affective Disorders	Mouse	528
18-285.0			NIEHS and UNC Behavior Core Contract	Mouse	1197
18-291.0			Effect of common pathogen infection on immune and vaccine response using the Collaborative Cross	Mouse	1440
18-300.0			Center for Integrated Systems Vaccines Against Alphaviruses	Mouse	2864
18-307.0			Antiviral Drug Discovery and Development Center: 2018	Mouse	9936

18-308.0		Defining the Genetics of Food Allergy and Tolerance	Mouse	880
18-309.0		Center for Integrated Systems Vaccinology and Adjuvant Exploration (CISVAx)	Mouse	6892
18-314.0		Systems Immunogenetics of Biodefense Pathogens in the Collaborative Cross - 2018_2	Mouse	7420
18-315.0		Role of maternal diet and allelic imbalance in behavior	Mouse	585
18-316.0		Effects of Artificial Sweeteners on Obesity and Tumorigenesis	Mouse	115
18-327.0		Continuation of Brg1 mouse model study	Mouse	20
19-005.0		Heparin-like carbohydrates for the study and potential treatment of acute liver failure	Mouse	35
19-010.0		The In Vivo Role of The MDM2-MDMX Interaction In P53 Regulation	Mouse	78
19-016.0		Behavioral Sensitivity to Alcohol	Rat	56
19-017.0		TDP43 and Tau models of neurodegenerative diseases	Mouse	2100
19-020.0		Examination of non-opioid alternatives for the prevention of stress induced hyperalgesia	Rat	540
19-024.0		Cardiac development and regeneration in zebrafish	Fish	150
19-032.0		Host targeted therapy for drug resistant salmonella and francisella infection II	Mouse	1368
19-033.0		Investigating S. aureus persister formation	Mouse	1080
19-043.0		Strain CC011 as a model of colitis and colon cance	Mouse	90
19-056.0		Regulation of Clostridium difficile colonization factors - Mouse	Mouse	2092
19-059.0		Functional impact of alternative splicing regulation of trafficking and membrane dynamics genes	Mouse	1848
19-064.0		Zika Pathogenesis and Immunity	Mouse	2598
19-068.0		CHIP: A Link Between the Chaperone and Proteasome Systems	Mouse	480
19-071.0		Exploiting inhibitory Siglecs to combat food allergies	Mouse	896
19-074.0		Zika virus transmission and replication	Mouse	4600

19-078.0		Stress and Drug Effects on Neuronal Circuits	Mouse	1296
19-084.0		Prebiotics, gut homeostasis and health	Mouse	96
19-097.0		Intestinal inflammation, fibrosis, and genotoxicity of the colonic-adherent microbiota	Mouse	2000

Exception Report
October 2018 - April 2019

IACUC ID	PI Name	SPECIES	EXCEPTION TITLE
16-129.0		Mouse	Delayed weaning of animals
17-051.0		Mouse	Exception to allow animals to lose more than 20% body weight
17-136.0		Mouse	Exception for more than 20% body weight/change in days
18-135.0		Pig	Single housing of animals
18-163.0		Mouse	Food/Water restriction
18-247.0		Rabbit	Allow BCS to reach 1.5 before euthanasia
18-247.0		Rabbit	Single housing of animals
18-273.0		Fish	Housing multiple species in the same room
18-274.0		Gerbil	Single housing of animals
18-280.0		Mouse	Hydrodynamic RNA injections
18-288.0		Mouse	Weaning by age, not weight
18-288.0		Mouse	Exemption to the requirement for administering a physical form of euthanasia for mice killed by CO2 overdose in mice 10 days old and greater
18-288.0		Mouse	Request to leave some litters with their mothers for more than 21 days
18-288.0		Mouse	Trio breeding in mouse size cages
18-291.0		Mouse	Exception to allow animals to lose more than 20% body weight
18-307.0		Mouse	Exception to allow animals to lose more than 20% body weight
18-309.0		Mouse	Exception to allow animals to lose more than 20% body weight
18-314.0		Mouse	Exception to allow animals to lose more than 20% body weight
18-315.0		Mouse	Exception request from the retro-orbital bleeding policy (Number of bleeds, time period between bleeds, and/or unanesthetized bleeds)
19-005.0		Mouse	Animal Procedural Space Exception (Housing/Holding of animals outside of a DCM animal facility for greater than 12 hours)

19-006.0		Mouse	Exception from the tumor policy (Increase in tumor size or allowing of tumors to become ulcerated or necrotic)
19-010.0		Mouse	Weight loss kinetic experiment in which mouse body weight will be analyzed during a 24-48 hours of fasting
19-017.0		Mouse	Exception to allow animals to lose more than 20% body weight
19-019.0		Mouse	Delayed weaning of animals
19-020.0		Rat	Use of diethyl ether
19-024.0		Fish	Exception from a secondary physical method of euthanasia
19-029.0		Mouse	Animal Procedural Space Exception (Housing/Holding of animals outside of a DCM animal facility for greater than 12 hours)
19-042.0		Mouse	Exception from the tumor policy (Increase in tumor size or allowing of tumors to become ulcerated or necrotic)
19-049.0		Multiple Species	Use rough, porous surfaces for animal enrichment in the animal cages
19-064.0		Mouse	Exception to allow animals to lose more than 20% body weight
19-074.0		Mouse	Exception from the aseptic surgery requirement
19-074.0		Mouse	Exception request from the retro-orbital bleeding policy (Number of bleeds, time period between bleeds, and/or unanesthetized bleeds)
19-074.0		Mouse	Exception to allow animals to lose more than 20% body weight
19-078.0		Mouse	Wire food hoppers may need to be removed and food placed in ceramic dishes on floor of cage

IACUC ID	First Name	Last Name	SPECIES	TITLE	Approval Date
17-268.0			Ferret	Airway Clearance in neonatal Ferrets continued	10/5/2018
16-282.0			Rabbit	Role of integrins/ECM ligands in controling IGF actions	10/6/2018
15-362.0			Chicken	Desferoxamine Infused Suture for the Repair of Poorly Vascularized Tissue: Radial Meniscus Tear in a Chicken Model	10/11/2018
18-156.0			Dog	ARFI imaging for real-time, in vivo monitoring of Syvek Patch-induced hemostasis in arterial punctures	10/12/2018
16-264.0			Guinea Pig	Bioengineering Catalytically Active Grafts for Vascular Surgery	10/15/2018
18-247.0			Rabbit	Investigation of CF Rabbit Model	10/30/2018
17-283.0			Rabbit	Novel magnetic resonance imaging sequence to characterize inflammatory changes in aneurysms in a proven rabbit model and assess therapeutic effect of aspirin	11/2/2018
16-002.0			Hamster	Microparticle resiquimod for the treatment of visceral leishmaniasis.	11/13/2018
18-207.0			Hamster	Phase Variation of Clostridium difficile virulence factors-Hamster	11/27/2018
17-027.0			Non-human Primate	Detection of Brown Adipose Tissue by Xenon Enhanced Computed Tomography	12/3/2018
18-027.0			Guinea Pig	Evaluation of the Interaction between the Host Immune Response, Gram-negative Bacteria, and Antibiotics using a Guinea Pig Lung Infection Model	12/3/2018
18-297.0			Deer Mouse	Collateral genetics	12/7/2018
18-169.0			Guinea Pig	Aerosol Delivery of CPZEN-45 for Treatment of non-tuberculous mycobacterial (NTMs) infections	12/12/2018
18-031.0			Guinea Pig	Pyrazine and pyridine analog inhaled therapies for tuberculosis	12/12/2018
18-238.0			Pig	VisR Ultrasound for Noninvasively Monitoring Renal Allograft Health	12/13/2018
18-035.0			Rabbit	DCM Rabbit Techniques	1/11/2019
18-059.0			Guinea Pig	Inhaled Antibody Drug Conjugates for Treating Tuberculosis	1/11/2019
17-044.0			Rabbit	Combating Deadly Gram-negative Lung Infections: An Inhalation and Systems Approach	1/11/2019

16-270.0		Guinea Pig	Inhaled pyrazinoic acid for tuberculosis therapy	2/4/2019
17-133.0		Guinea Pig	Establishing a model for testing inhaled therapies on Mtb Erdman infected guinea pigs	2/6/2019
18-069.0		Guinea Pig	Inhaled therapies to treat tuberculosis	2/8/2019
18-080.0		Gerbil	Auditory pathways from the midbrain to the cortex	2/8/2019
17-076.0		Rabbit	Respiratory Virus infection of Wild-type and CFTR-null rabbits	2/8/2019
18-060.0		Guinea Pig	Isolation of primary peritoneal and alveolar macrophages from guinea pigs	2/13/2019
19-035.0		Pig	Ultrasound Based Neuro-Imaging and Mechanical Testing	2/18/2019
17-182.0		Ferret	Establishing Network Targets during Development for Non-Invasive Brain Stimulation	2/25/2019
17-087.0		Dog	Maintenance of Animal Models of Human Hemophilia and vWD	2/25/2019
19-039.0		Pig	Maintenace of Pig Breeding Stock at the Francis Owen Blood Research Laboratory	2/26/2019
17-052.0		Pig	Lung Transplant in Swine	2/28/2019
17-094.0		Ferret	Mechanism and Control of Cortical Network Activity	3/8/2019
17-105.0		Gerbil	Isolating sources of cochlear potentials in the gerbil	3/8/2019
18-047.0		Ferret	A Control Systems Approach to Understanding Brain and Behavior	3/12/2019
18-274.0		Gerbil	Intraoperative physiological monitoring during cochlear implantation	3/15/2019
19-047.0		Pig	Gated Thoracic Imaging	3/28/2019
17-135.0		Pig	Bronchoscopic Steerable Needles for Transparenchymal Access to Lung Nodules	4/5/2019
18-135.0		Pig	Anatomic optical coherence tomography for quantitative bronchoscopy	4/5/2019
17-134.0		Pig	Insulin Resistant Pigs	4/5/2019

17-223.0		Pig	Orbital and central cerebrospinal fluid pressure dynamics: A comprehensive investigation of retrobulbar pressure	4/17/2019

Protocols, Annual Renewals and Title Funding Changes

November 2018 - April 2019

IACUC Meeting Month	FULL	ANNUAL		TOTAL		T/F
Nov-18	28	1		29		19
Dec-18	30	4		34		12
Jan-19	23	9		32		10
Feb-19	21	6		27		19
March-19	34	3		37		20
April-19	16	3		19		12
Totals	152	26		178		92

Amendments

November 2018 - April 2019

Month	Amendments	Designated Member Review	Personnel	Full Committee	Veterinary Verification
Nov-18	119	42	71	0	6
Dec-18	82	34	41	0	7
Jan-19	74	22	47	3	5
Feb-19	129	56	68	3	5
March-19	99	40	49	1	10
April-19	108	49	52	1	7
TOTAL	611	243	328	8	40

Reports to the United States Department of Agriculture (USDA)

IACUC Training Reports

IACUC Training: # individuals trained in each type of training offered

# Trainees	Dec 2014	April 2015	Oct 2015	April 2016	Oct 2016	April 2017	Oct 2017	April 2018	Oct 2018	April 2019	% Change April 2018 : October 2018
Mouse	132	97	122	133	143	115	134	123	152	121	↓1%
Rat	21	17	26	35	45	36	42	34	43	28	↓17%
Aseptic	54	35	59	38	50	52	56	34	46	52	↑53%
LAC lecture	32	21	28	30	47	23	37	35	32	25	↓29%
Mouse Cage Density Lecture	73	58	68	56	86	51	76	45	53	43	↓4%
Colony Mgmt. Lecture	20	2	7	8	14	10	0	13	0	0	Optional- none requested, so not offered
One on Ones	132	106	115	103	100	56	78	67	98	75	↑12%

One on One Training (Hands On and Lecture)   Total: 75

Date	Medium	Subject/Class	Trainer(s)	Trainee	PI Laboratory	Proficiency Rating
10/18/2018	Hands-on	One-on-One				3-RAT
10/18/2018	Hands-on	One-on-One				2
10/18/2018	Hands-on	One-on-One				1-LAC
10/18/2018	Hands-on	One-on-One				2-LAC
10/24/2018	Hands-on	One-on-One				2-LAC
10/24/2018	Hands-on	One-on-One				2
11/1/2018	Hands-on	One-on-One				1-LAC
11/8/2018	Hands-on	One-on-One				2-LAC
11/8/2018	Hands-on	One-on-One				2
11/8/2018	Hands-on	One-on-One				3
11/14/2018	Hands-on	One-on-One				2
11/14/2018	Hands-on	One-on-One				3
11/14/2018	Hands-on	One-on-One				1-LAC
11/28/2018	Hands-on	One-on-One				2
11/28/2018	Hands-on	One-on-One				2
11/28/2018	Hands-on	One-on-One				2-LAC
11/28/2018	Hands-on	One-on-One				2-LAC
11/28/2018	Hands-on	One-on-One				2-LAC
12/5/2018	Hands-on	One-on-One				2
12/5/2018	Hands-on	One-on-One				2
12/5/2018	Hands-on	One-on-One				2
12/7/2018	Hands-on	One-on-One				2
12/19/2018	Hands-on	One-on-One				2-LAC
12/19/2018	Hands-on	One-on-One				3-LAC
12/19/2018	Hands-on	One-on-One				1-LAC (RAT)
12/19/2018	Hands-on	One-on-One				1-LAC (RAT)
12/19/2018	Hands-on	One-on-One				1-LAC
1/7/2019	Hands-on	One-on-One				2-LAC
1/7/2019	Hands-on	One-on-One				1-LAC

Date	Type	Format	Value
1/7/2019	Hands-on	One-on-One	2
1/14/2019	Hands-on	One-on-One	1-LAC
1/14/2019	Hands-on	One-on-One	2
1/14/2019	Hands-on	One-on-One	2
1/14/2019	Hands-on	One-on-One	1-LAC
1/14/2019	Hands-on	One-on-One	2-LAC
1/14/2019	Hands-on	One-on-One	1
1/28/2019	Hands-on	One-on-One	1
1/28/2019	Hands-on	One-on-One	1
1/31/2019	Hands-on	One-on-One	2
2/11/2019	Hands-on	One-on-One	1
2/11/2019	Hands-on	One-on-One	2-LAC
2/20/2019	Hands-on	One-on-One	1
2/20/2019	Hands-on	One-on-One	2
2/20/2019	Hands-on	One-on-One	3-RAT
2/20/2019	Hands-on	One-on-One	1
2/20/2019	Hands-on	One-on-One	2
2/25/2019	Lecture	One-on-One	
2/28/2019	Hands-on	One-on-One	2
2/28/2019	Hands-on	One-on-One	2-LAC
2/28/2019	Hands-on	One-on-One	2
2/28/2019	Hands-on	One-on-One	2
2/28/2019	Hands-on	One-on-One	1
2/28/2019	Hands-on	One-on-One	1
3/7/2019	Hands-on	One-on-One	1-LAC
3/7/2019	Hands-on	One-on-One	2 (RAT)
3/7/2019	Hands-on	One-on-One	2
3/14/2019	Hands-on	One-on-One	2-RAT
3/14/2019	Hands-on	One-on-One	3
3/14/2019	Hands-on	One-on-One	1
3/14/2019	Hands-on	One-on-One	1

3/14/2019	Hands-on	One-on-One		2
3/14/2019	Hands-on	One-on-One		1-LAC
3/14/2019	Hands-on	One-on-One		2-LAC
3/14/2019	Hands-on	One-on-One		2-LAC
3/19/2019	Hands-on	One-on-One		2
3/19/2019	Hands-on	One-on-One		1-LAC
3/19/2019	Hands-on	One-on-One		1 (RAT)-LAC
3/19/2019	Hands-on	One-on-One		1 (RAT)-LAC
3/19/2019	Hands-on	One-on-One		2
3/19/2019	Hands-on	One-on-One		2-LAC
3/25/2019	Hands-on	One-on-One		1
3/25/2019	Hands-on	One-on-One		1-LAC
3/25/2019	Hands-on	One-on-One		2-LAC
3/25/2019	Hands-on	One-on-One		1
4/3/2019	Hands-on	Mouse Handling Class		2

Laboratory Animal Coordinator Lecture   Total: 25

Date	Medium	Subject/Class	Trainer(s)	Trainee
11/12/2018	Lecture	Laboratory Coordinator Lecture		
12/17/2018	Lecture	Laboratory Coordinator Lecture		
12/17/2018	Lecture	Laboratory Coordinator Lecture		
12/17/2018	Lecture	Laboratory Coordinator Lecture		
12/17/2018	Lecture	Laboratory Coordinator Lecture		
12/17/2018	Lecture	Laboratory Coordinator Lecture		
12/17/2018	Lecture	Laboratory Coordinator Lecture		
12/17/2018	Lecture	Laboratory Coordinator Lecture		
12/17/2018	Lecture	Laboratory Coordinator Lecture		
1/8/2019	Lecture	Laboratory Coordinator Lecture		
1/8/2019	Lecture	Laboratory Coordinator Lecture		
2/12/2019	Lecture	Laboratory Coordinator Lecture		
2/12/2019	Lecture	Laboratory Coordinator Lecture		
2/12/2019	Lecture	Laboratory Coordinator Lecture		
2/12/2019	Lecture	Laboratory Coordinator Lecture		
2/12/2019	Lecture	Laboratory Coordinator Lecture		
2/12/2019	Lecture	Laboratory Coordinator Lecture		
2/12/2019	Lecture	Laboratory Coordinator Lecture		
3/12/2019	Lecture	Laboratory Coordinator Lecture		
3/12/2019	Lecture	Laboratory Coordinator Lecture		
3/12/2019	Lecture	Laboratory Coordinator Lecture		
3/12/2019	Lecture	Laboratory Coordinator Lecture		
3/12/2019	Lecture	Laboratory Coordinator Lecture		
3/12/2019	Lecture	Laboratory Coordinator Lecture		
3/12/2019	Lecture	Laboratory Coordinator Lecture		

Mouse Cage Density Policy Lecture   Total: 43

Date	Medium	Subject/Class	Trainer(s)	Trainee
11/12/2018	Lecture	Mouse Cage Density Lecture		
11/12/2018	Lecture	Mouse Cage Density Lecture		
11/12/2018	Lecture	Mouse Cage Density Lecture		
11/12/2018	Lecture	Mouse Cage Density Lecture		
11/12/2018	Lecture	Mouse Cage Density Lecture		
11/12/2018	Lecture	Mouse Cage Density Lecture		
12/17/2018	Lecture	Mouse Cage Density Lecture		
12/17/2018	Lecture	Mouse Cage Density Lecture		
12/17/2018	Lecture	Mouse Cage Density Lecture		
12/17/2018	Lecture	Mouse Cage Density Lecture		
12/17/2018	Lecture	Mouse Cage Density Lecture		
12/17/2018	Lecture	Mouse Cage Density Lecture		
12/17/2018	Lecture	Mouse Cage Density Lecture		
12/17/2018	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
1/8/2019	Lecture	Mouse Cage Density Lecture		
2/12/2019	Lecture	Mouse Cage Density Lecture		
2/12/2019	Lecture	Mouse Cage Density Lecture		
2/12/2019	Lecture	Mouse Cage Density Lecture		
2/12/2019	Lecture	Mouse Cage Density Lecture		
2/12/2019	Lecture	Mouse Cage Density Lecture		
2/12/2019	Lecture	Mouse Cage Density Lecture		
2/12/2019	Lecture	Mouse Cage Density Lecture		

2/12/2019	Lecture	Mouse Cage Density Lecture		
3/12/2019	Lecture	Mouse Cage Density Lecture		
3/12/2019	Lecture	Mouse Cage Density Lecture		
3/12/2019	Lecture	Mouse Cage Density Lecture		
3/12/2019	Lecture	Mouse Cage Density Lecture		
3/12/2019	Lecture	Mouse Cage Density Lecture		
3/12/2019	Lecture	Mouse Cage Density Lecture		
3/12/2019	Lecture	Mouse Cage Density Lecture		
3/12/2019	Lecture	Mouse Cage Density Lecture		
3/12/2019	Lecture	Mouse Cage Density Lecture		
3/12/2019	Lecture	Mouse Cage Density Lecture		

Mouse Handling and Techniques Class   Total: 121

Date	Medium	Subject/Class	Trainer(s)	Trainee	PI Laboratory	Proficiency Rating
10/17/2018	Hands-on	Mouse Handling Class				2
10/17/2018	Hands-on	Mouse Handling Class				3
10/17/2018	Hands-on	Mouse Handling Class				2
10/17/2018	Hands-on	Mouse Handling Class				2
10/17/2018	Hands-on	Mouse Handling Class				2
10/17/2018	Hands-on	Mouse Handling Class				2
10/17/2018	Hands-on	Mouse Handling Class				3
10/17/2018	Hands-on	Mouse Handling Class				2
10/17/2018	Hands-on	Mouse Handling Class				1-LAC
10/17/2018	Hands-on	Mouse Handling Class				3
11/13/2018	Hands-on	Mouse Handling Class				1
11/13/2018	Hands-on	Mouse Handling Class				2
11/13/2018	Hands-on	Mouse Handling Class				2
11/13/2018	Hands-on	Mouse Handling Class				2
11/13/2018	Hands-on	Mouse Handling Class				2
11/13/2018	Hands-on	Mouse Handling Class				2-LAC
11/13/2018	Hands-on	Mouse Handling Class				2
11/13/2018	Hands-on	Mouse Handling Class				2
11/13/2018	Hands-on	Mouse Handling Class				2
11/13/2018	Hands-on	Mouse Handling Class				2
11/27/2018	Hands-on	Mouse Handling Class				1
11/27/2018	Hands-on	Mouse Handling Class				3
11/27/2018	Hands-on	Mouse Handling Class				2
11/27/2018	Hands-on	Mouse Handling Class				3
11/27/2018	Hands-on	Mouse Handling Class				2
11/27/2018	Hands-on	Mouse Handling Class				2

11/27/2018	Hands-on	Mouse Handling Class		2
11/27/2018	Hands-on	Mouse Handling Class		2
12/4/2018	Hands-on	Mouse Handling Class		2
12/4/2018	Hands-on	Mouse Handling Class		1
12/4/2018	Hands-on	Mouse Handling Class		3
12/4/2018	Hands-on	Mouse Handling Class		2
12/4/2018	Hands-on	Mouse Handling Class		3
12/4/2018	Hands-on	Mouse Handling Class		3
12/4/2018	Hands-on	Mouse Handling Class		2
12/4/2018	Hands-on	Mouse Handling Class		3
12/4/2018	Hands-on	Mouse Handling Class		3
12/4/2018	Hands-on	Mouse Handling Class		1
12/4/2018	Hands-on	Mouse Handling Class		1-LAC
1/9/2019	Hands-on	Mouse Handling Class		2-LAC
1/9/2019	Hands-on	Mouse Handling Class		2
1/9/2019	Hands-on	Mouse Handling Class		2-LAC
1/9/2019	Hands-on	Mouse Handling Class		1-LAC
1/9/2019	Hands-on	Mouse Handling Class		2
1/9/2019	Hands-on	Mouse Handling Class		2
1/9/2019	Hands-on	Mouse Handling Class		2
1/9/2019	Hands-on	Mouse Handling Class		2
1/9/2019	Hands-on	Mouse Handling Class		2
1/9/2019	Hands-on	Mouse Handling Class		2
1/9/2019	Hands-on	Mouse Handling Class		2
1/22/2019	Hands-on	Mouse Handling Class		3
1/22/2019	Hands-on	Mouse Handling Class		3
1/22/2019	Hands-on	Mouse Handling Class		2
1/22/2019	Hands-on	Mouse Handling Class		2

1/22/2019	Hands-on	Mouse Handling Class		1-LAC
1/22/2019	Hands-on	Mouse Handling Class		2
1/22/2019	Hands-on	Mouse Handling Class		2
1/22/2019	Hands-on	Mouse Handling Class		3
1/22/2019	Hands-on	Mouse Handling Class		2
1/22/2019	Hands-on	Mouse Handling Class		2
1/22/2019	Hands-on	Mouse Handling Class		2
1/22/2019	Hands-on	Mouse Handling Class		3
1/30/2019	Hands-on	Extra Mouse Handling Class		3
1/30/2019	Hands-on	Extra Mouse Handling Class		2
1/30/2019	Hands-on	Extra Mouse Handling Class		2
1/30/2019	Hands-on	Extra Mouse Handling Class		1
1/30/2019	Hands-on	Extra Mouse Handling Class		2
2/6/2019	Hands-on	Mouse Handling Class		3
2/6/2019	Hands-on	Mouse Handling Class		2
2/6/2019	Hands-on	Mouse Handling Class		3
2/6/2019	Hands-on	Mouse Handling Class		1
2/6/2019	Hands-on	Mouse Handling Class		2
2/6/2019	Hands-on	Mouse Handling Class		2
2/6/2019	Hands-on	Mouse Handling Class		1-LAC
2/6/2019	Hands-on	Mouse Handling Class		2
2/6/2019	Hands-on	Mouse Handling Class		2
2/6/2019	Hands-on	Mouse Handling Class		1
2/6/2019	Hands-on	Mouse Handling Class		3
2/21/2019	Hands-on	Mouse Handling Class		2
2/21/2019	Hands-on	Mouse Handling Class		2
2/21/2019	Hands-on	Mouse Handling Class		2-LAC
2/21/2019	Hands-on	Mouse Handling Class		2

2/21/2019	Hands-on	Mouse Handling Class		3
2/21/2019	Hands-on	Mouse Handling Class		2
2/21/2019	Hands-on	Mouse Handling Class		2
2/21/2019	Hands-on	Mouse Handling Class		2
2/21/2019	Hands-on	Mouse Handling Class		3
2/21/2019	Hands-on	Mouse Handling Class		3
2/21/2019	Hands-on	Mouse Handling Class		2
3/6/2019	Hands-on	Mouse Handling Class		2
3/6/2019	Hands-on	Mouse Handling Class		3
3/6/2019	Hands-on	Mouse Handling Class		2
3/6/2019	Hands-on	Mouse Handling Class		2
3/6/2019	Hands-on	Mouse Handling Class		2
3/6/2019	Hands-on	Mouse Handling Class		2
3/6/2019	Hands-on	Mouse Handling Class		2
3/6/2019	Hands-on	Mouse Handling Class		2
3/6/2019	Hands-on	Mouse Handling Class		2-LAC
3/26/2019	Hands-on	Mouse Handling Class		3
3/26/2019	Hands-on	Mouse Handling Class		2
3/26/2019	Hands-on	Mouse Handling Class		2-LAC
3/26/2019	Hands-on	Mouse Handling Class		2
3/26/2019	Hands-on	Mouse Handling Class		3
3/26/2019	Hands-on	Mouse Handling Class		3
3/26/2019	Hands-on	Mouse Handling Class		2
3/26/2019	Hands-on	Mouse Handling Class		2-LAC
3/26/2019	Hands-on	Mouse Handling Class		3
3/26/2019	Hands-on	Mouse Handling Class		2
4/3/2019	Hands-on	Mouse Handling Class		2

4/3/2019	Hands-on	Mouse Handling Class		2
4/3/2019	Hands-on	Mouse Handling Class		3
4/3/2019	Hands-on	Mouse Handling Class		3
4/3/2019	Hands-on	Mouse Handling Class		2
4/3/2019	Hands-on	Mouse Handling Class		2
4/3/2019	Hands-on	Mouse Handling Class		3
4/9/2019	Hands-on	Mouse Handling Class		2
4/9/2019	Hands-on	Mouse Handling Class		2
4/9/2019	Hands-on	Mouse Handling Class		1
4/9/2019	Hands-on	Mouse Handling Class		1
4/9/2019	Hands-on	Mouse Handling Class		3

Rat Handling and Techniques Class   Total: 28

Date	Medium	Subject/Class	Trainer(s)	Trainee	PI Laboratory	Proficiency Rating
11/15/2018	Hands-on	Rat Handling Techniques				3
11/15/2018	Hands-on	Rat Handling Techniques				3
11/15/2018	Hands-on	Rat Handling Techniques				2
11/15/2018	Hands-on	Rat Handling Techniques				3
11/15/2018	Hands-on	Rat Handling Techniques				2-LAC
12/6/2018	Hands-on	Rat Handling Techniques				2-LAC
12/6/2018	Hands-on	Rat Handling Techniques				2-LAC
12/6/2018	Hands-on	Rat Handling Techniques				2-LAC
12/6/2018	Hands-on	Rat Handling Techniques				2
12/6/2018	Hands-on	Rat Handling Techniques				2
12/6/2018	Hands-on	Rat Handling Techniques				1-LAC
12/6/2018	Hands-on	Rat Handling Techniques				3
1/15/2019	Hands-on	Rat Handling Techniques				2
1/15/2019	Hands-on	Rat Handling Techniques				2
3/20/2019	Hands-on	Rat Handling Techniques				3
3/20/2019	Hands-on	Rat Handling Techniques				3
3/20/2019	Hands-on	Rat Handling Techniques				2
3/20/2019	Hands-on	Rat Handling Techniques				2
3/20/2019	Hands-on	Rat Handling Techniques				2-LAC
3/20/2019	Hands-on	Rat Handling Techniques				2
3/20/2019	Hands-on	Rat Handling Techniques				2
3/20/2019	Hands-on	Rat Handling Techniques				3
3/20/2019	Hands-on	Rat Handling Techniques				2
4/10/2019	Hands-on	Rat Handling Techniques				2
4/10/2019	Hands-on	Rat Handling Techniques				2

4/10/2019	Hands-on	Rat Handling Techniques		3
4/10/2019	Hands-on	Rat Handling Techniques		2
4/10/2019	Hands-on	Rat Handling Techniques		2

Aseptic Techniques Class   Total: 52

Date	Medium	Subject/Class	Trainer(s)	Trainee	PI Laboratory	Proficiency Rating
10/23/2018	Hands-on	Aseptic Techniques				3
10/23/2018	Hands-on	Aseptic Techniques				2-LAC
10/23/2018	Hands-on	Aseptic Techniques				2
10/23/2018	Hands-on	Aseptic Techniques				2
10/23/2018	Hands-on	Aseptic Techniques				1-LAC
10/23/2018	Hands-on	Aseptic Techniques				2
11/29/2018	Hands-on	Aseptic Techniques				2
11/29/2018	Hands-on	Aseptic Techniques				2
11/29/2018	Hands-on	Aseptic Techniques				3
11/29/2018	Hands-on	Aseptic Techniques				1
11/29/2018	Hands-on	Aseptic Techniques				2-LAC
11/29/2018	Hands-on	Aseptic Techniques				3
11/29/2018	Hands-on	Aseptic Techniques				2-LAC
11/29/2018	Hands-on	Aseptic Techniques				2-LAC
11/29/2018	Hands-on	Aseptic Techniques				2
12/12/2018	Hands-on	Aseptic Techniques				2
12/12/2018	Hands-on	Aseptic Techniques				2
12/12/2018	Hands-on	Aseptic Techniques				2
12/12/2018	Hands-on	Aseptic Techniques				2
12/12/2018	Hands-on	Aseptic Techniques				3
12/12/2018	Hands-on	Aseptic Techniques				2
12/12/2018	Hands-on	Aseptic Techniques				3
12/12/2018	Hands-on	Aseptic Techniques				2-LAC
1/29/2019	Hands-on	Aseptic Techniques				3-LAC
1/29/2019	Hands-on	Aseptic Techniques				3-LAC
1/29/2019	Hands-on	Aseptic Techniques				2
1/29/2019	Hands-on	Aseptic Techniques				2
1/29/2019	Hands-on	Aseptic Techniques				2
1/29/2019	Hands-on	Aseptic Techniques				2
1/29/2019	Hands-on	Aseptic Techniques				2
1/29/2019	Hands-on	Aseptic Techniques				2

1/29/2019	Hands-on	Aseptic Techniques	2
1/29/2019	Hands-on	Aseptic Techniques	3
2/26/2019	Hands-on	Aseptic Techniques	2
2/26/2019	Hands-on	Aseptic Techniques	1
2/26/2019	Hands-on	Aseptic Techniques	1
2/26/2019	Hands-on	Aseptic Techniques	3
2/26/2019	Hands-on	Aseptic Techniques	2
2/26/2019	Hands-on	Aseptic Techniques	3
2/26/2019	Hands-on	Aseptic Techniques	2
2/26/2019	Hands-on	Aseptic Techniques	3
2/26/2019	Hands-on	Aseptic Techniques	2
2/26/2019	Hands-on	Aseptic Techniques	3
3/28/2019	Hands-on	Aseptic Techniques	1
3/28/2019	Hands-on	Aseptic Techniques	3
3/28/2019	Hands-on	Aseptic Techniques	2-LAC
3/28/2019	Hands-on	Aseptic Techniques	1
3/28/2019	Hands-on	Aseptic Techniques	1
3/28/2019	Hands-on	Aseptic Techniques	1-LAC
3/28/2019	Hands-on	Aseptic Techniques	2
3/28/2019	Hands-on	Aseptic Techniques	2-LAC
3/28/2019	Hands-on	Aseptic Techniques	2

Occupational Health and Safety of Personnel

IACUC – Semi Annual Review
April 24, 2019
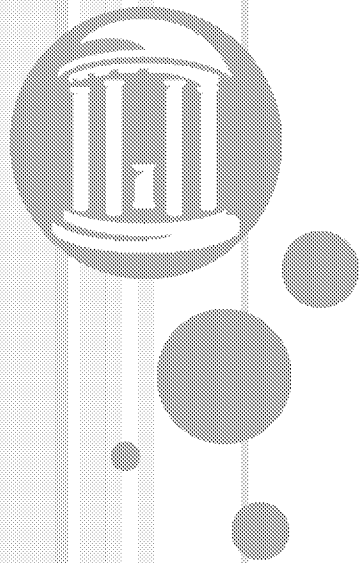
Environment, Health & Safety

University of North Carolina at Chapel Hill

HAZARDOUS AGENTS

- Continue to review and approve hazard forms (total since last semi-annual review)
  - Biological – **257** (3108 lifetime)
  - Chemical – **611** (9506 lifetime)
  - Radiological – **7** (260 lifetime)

Total Approved Hazard Forms

1%

29%

70%

- Biological
- Chemical
- Radiological
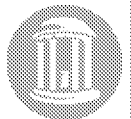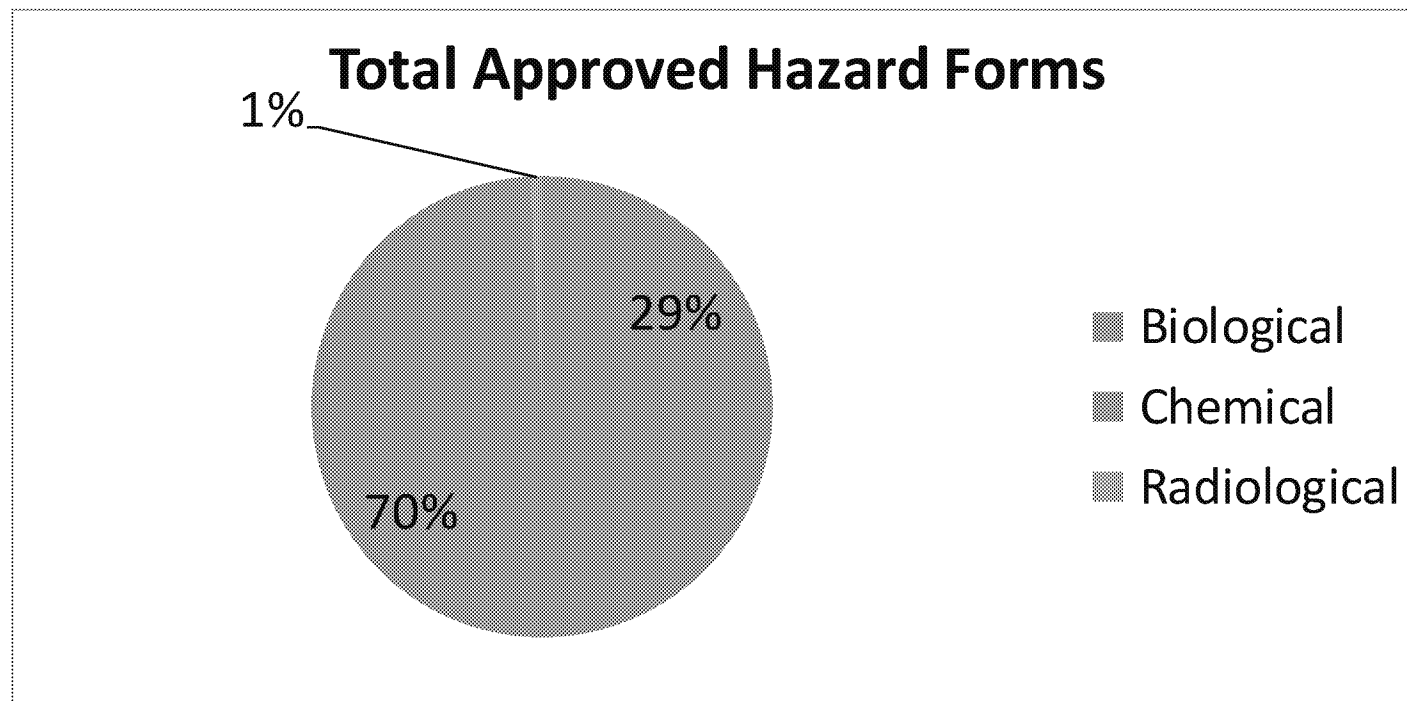
Overview of EHS Program

- Compliance report (training and medical surveillance) sent weekly to DCM Training Coordinators
  - Report run on 04/15/19 showed 10.06% employees (17) as non-compliant
- Investigated and completed reports for 13 DCM injuries
  - Allergic Reaction
  - Animal Bite (2)
  - Back Strain
  - Bump to Forehead
  - Chemical Exposure (2)
  - Elbow Pain
  - Finger Injury (2)
  - Shoulder Strain
  - Wrist Strain (2)
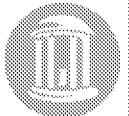
2018 NIH/CDC REPORTABLE INCIDENTS

7 Total Reportable Incidents
2 incidents involving animals reported to NIH
1 incident not involving animals required reporting to CDC

Biosafety Level	# of Incidents Involving Animals
2	2
3	0

Notes on Incidents Involving Animals
➢ One incident involving a low-risk for exposure to personnel performing endotracheal inoculation on rabbit at   using a BSC that was not turned on.
➢ One incident involving a mouse bite on the index finger by a transgenic mouse.

2019 NIH/CDC REPORTABLE INCIDENTS (AS OF 4/15/2019)

1 Total Reportable Incidents
0 incidents involving animals reported to NIH
0 incident involving animals reported to CDC

Biosafety Level	# of Incidents Involving Animals
2	0
3	0

MOUSE ESCAPES VS TOTAL INCIDENTS REPORTED TO NIH/CDC (AS OF 4/15/19)

Year	Mouse Escapes	Reportable Incidents	% of total Incidents
2013	4	10	40%
2014	4	6	66%
2015	4	10	40%
2016	0	4	0%
2017	0	4	0%
2018	0	7	0%
2019	0	1	0%
TOTAL	12	42	29%

- 10 of the 12 primary containment escapes involved CC mice.
- No animals escaped from the laboratory.
- No lab acquired infections resulted from the escapes.

2019 Injuries/Illnesses/Near Misses Reported to EHS

○ DLAM accounts for approximately 9.79% of the total claims reported to the University (as of 03/31/2019)

Total Reported Incidents

Year	Incidents
as of March 31, 2019	~14
2018	~35
2017	~24
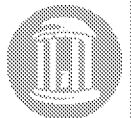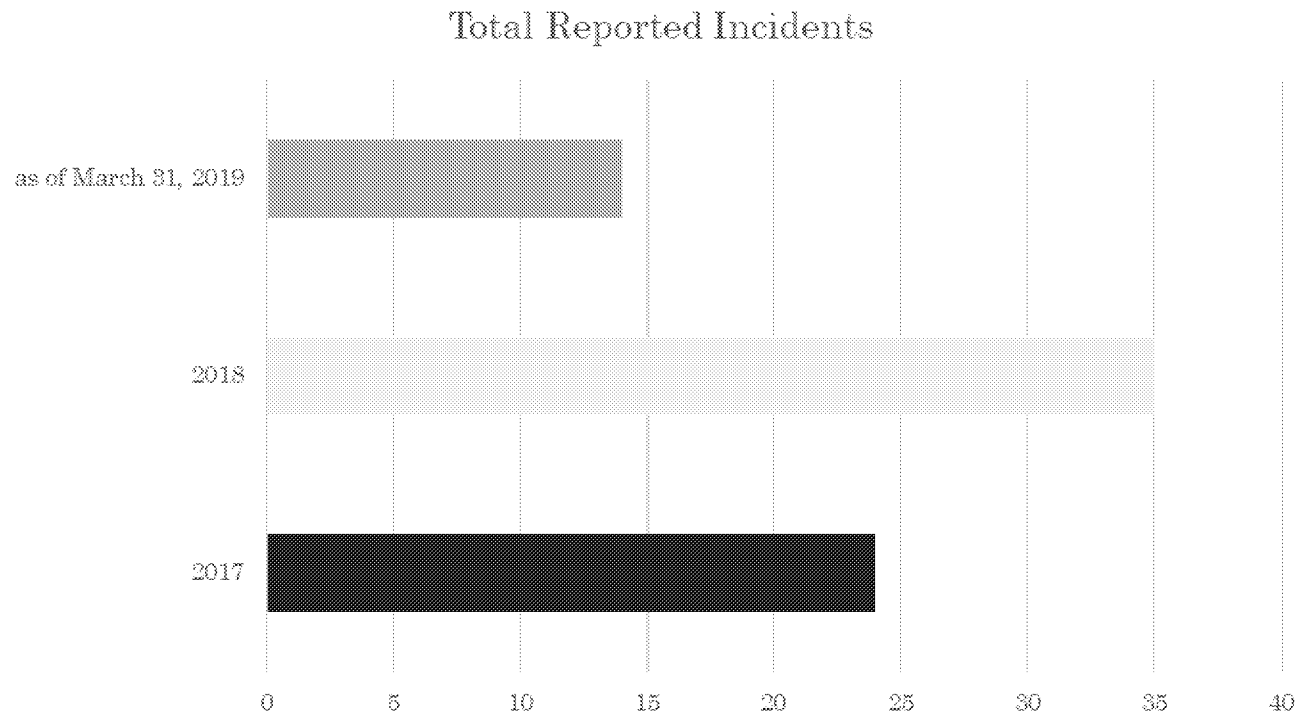
SERIOUS WORKPLACE INCIDENTS ONLY

⊚ Lost time of six or more lost days is categorized as a serious workplace injury

- 2016 – 0
- 2017 – 0 (2LT cases resulting in 6 lost time days)
- 2018 – 1 (3 LT cases resulting in 12 lost time days)
- 2019 – 0 (2 LT cases resulting in 8 lost time days as of 03/31/2019)
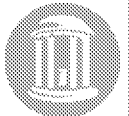
ANNUAL ANIMAL REVIEW

- 1,372 Active Researchers working with Animals on campus
- 1,1359 (99%) have completed the annual review (as of 03/31/2019)
- One required further evaluation at the UEOHC.
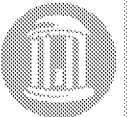
Investigating and Reporting
Animal Welfare Concerns

Investigating & Reporting Animal Welfare Concerns
(Animal Concern Reports - ACR)

- **7 ACRs (increase of 1 from last PR)**
  - 7 of 7reportable to OLAW
  - Trending: No clear trends, all unrelated

- **4 Self-Report/Other reports to IACUC (**Incidents that do not rise to the level of ACR, determined by the IACUC)
  - Increased awareness of reporting responsibility and improved relations with researchers and DCM willing to self-report

Veterinary Care

Policies, Guidelines and SOPs

Environmental Enrichment
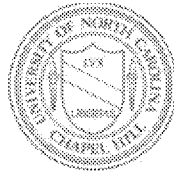
Canine Environmental Enhancement Plan

University of North Carolina- Chapel Hill

Origination Date: April 14ᵗʰ, 2014

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for canines in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall well- being of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).
   a. **Social Enhancement**:
      i. Dogs are pair housed in their enclosures.
      ii. In some cases, a dog may be singly housed. Examples include:
         1. Incompatibility.
         2. Documented health concerns.
         3. An approved exception described in the IACUC protocol or by veterinary recommendation.
         4. If females are in heat.
      iii. Caging design allows singly housed dogs to receive visual, olfactory, and auditory cues from their conspecifics.
      iv. Dogs may be brought out of their enclosure for supervised play. Playtime allows the animal(s) to have socialization with staff and the opportunity to play with interactive toys, as well as encourages physical activity. Care should be taken to not put females in heat and intact males together during playtime!

1. Our goal is for dogs in long term housing to have at least one hour of yard time OR 15 minutes of walk time each week – inclement weather or other factors may prevent this at times. Dogs in short term housing facilities may be brought to a designated play room for supervised play for at least 15 minutes per week. When a dog is placed in the yard or taken outside to walk, the temperature at that time will be recorded as well as the amount of time the dog was outside. Exceptions may be made for extreme temperatures (below 32°F and above 95°F) and/or inclement weather. During extreme weather, time outside should be limited to no more than 15 minutes.

    a. Yard Time
        i. Dogs will be allowed access to an outdoor play yard regularly – our goal is at least one hour per week. The only dogs that are allowed in the outside pen together are those that are housed together. Toys will be provided, as well as shade, a resting platform, and clean water for drinking.

    b. Walk Time
        i. Dogs may be walked in place of, or in addition to, play yard time. When walking is utilized in place of play yard time, it will be for at least 15 minutes per week. An appropriate harness or leash will be used, and the handler will be careful to keep the dog under control while out of the pen. When simultaneously walking dogs outside that are not housed together, contact between the non-paired dogs should be avoided.

2. Dog Play Area Guidelines: When dogs are brought out of their pens into a designated area for playtime, these guidelines should be followed:

    a. Transport to play area from housing room
        i. Only dogs that are housed in a run together may be brought out together for playtime.
        ii. Hallways (if applicable) should be checked for non-DCM staff before bringing a dog into the hall.
        iii. While in the hallway, dogs must remain under control of the handler.

    b. Supervision of Play
        i. Dogs in short term housing which are taken to a designated play room should be supervised within the play area.
        ii. The play area may contain approved toys that are not appropriate for use in home pens (e.g. soft toys, tennis balls, etc.). Close supervision must be maintained for these toys, and they should be discarded if they show any signs of excessive wear.
        iii. Interaction between the DCM staff and dogs during playtime is strongly encouraged. Positive reinforcement training may also occur during the

playtime.

  iv. Dogs should be carefully watched for any signs of aggression, toy guarding, etc. A spray bottle with water and/or "pig board" may be used to discourage aggressive behaviors.

 c. Cleaning and sanitization of play room (if applicable)

  i. The play area should be cleaned after each use, if applicable. The floor and walls should be sprayed to remove any urine or feces, and feces should be collected and discarded appropriately. Toys should be placed back in their bins within the room if unsoiled; if soiled they should be sanitized via cage wash or laundry as appropriate.

  ii. All toys should be sanitized as appropriate, at least weekly.

  iii. The play area will be sanitized once per month, if applicable, according to the DCM "Care of Dogs" SOP.

 v. Periodically, dogs may be exposed to novel stimuli (i.e. unfamiliar persons entering the room). This will happen at irregular intervals to acclimate dogs to the types of infrequent, irregular interactions that occur during regulatory inspections, building maintenance/repair, etc.

b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).

 i. Pens may have an elevated resting place or bed, giving the dogs an element of choice and adding complexity to their environment.

 ii. "Chewing is a natural canine behavior and is a rewarding experience for dogs" (LA, IJLAS, 2004). A different toy should be rotated into the pen every week (e.g. Kong®, Stuff-A-Ball ®, Goodie Bone®, etc.) to help preserve the items novelty as well as provide different opportunities for dogs to engage in species-specific behaviors.

 iii. NOTE: Individual animals may not be able to receive beds or certain toys due to chewing hazards. This will be noted at the cage level. Refer to the "Guidelines for Dog Toy Usage" SOP for further instructions.

 iv. **Sensory Enrichment:** Playing classical music to kenneled dogs may help alleviate the inherent stress in a shelter or laboratory environment (Kogan 2012).

  1. Dogs receive at least 30 minutes of radio/music time every week. The music that is played is especially composed for domestic species (the Mind, Body, Soul series®) or something similar, such as light classical music.

c. **Documentation:**

 i. Toy rotation, radio time, and exposure to novel stimuli are documented weekly on the Canine Enrichment Log. It is typically located near the entrance of the animal holding room.

 ii. Playtime (yard time or walk time) will be documented on the Canine Exercise Log. It is typically located near the entrance of the animal holding room.

    iii. If yard/walk time was not able to be completed during a calendar week, document the reason for missed yard/walk time on the Canine Exercise Log.

    iv. Enrichment logs will be collected monthly and maintained in a central location by enrichment staff.

    v. All human social interaction with dogs should be documented on the Canine Enrichment Log.

References

1) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.
2) National Research Council, Institute of Laboratory Animal Research, The Psychological Well-Being of Nonhuman Primates. Washington: National Academy Press, 1998.
3) Stewart, KL and K. Bayne. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.
4) Beaver, BV. Environmental Enrichment for Laboratory Animals. ILAR News 1989; 31(2):5-11.
5) Laboratory Animals, The International Journal of Laboratory Animal Science and Welfare, Refining Dog Husbandry and Care. Royal Society of Medicine Press Ltd., 2004.
6) Kogan, LR, Schoenfeld-Tacher, R, and Simon, AA. Behavioral effects of auditory stimulation on kenneled dogs. Journal of Veterinary Behavior 2012: 7: 268-275.

Appendices

1) Example of Canine Environmental Enrichment Log
2) Example of Canine Exercise Log
3) Examples of dog appropriate toys
4) Example of "No Bed" cage card

Changes to Version Dated 07-20-16

- Added yard time and walk time guidelines and the use of a Canine Exercise Log
- Added dog play area guidelines
- Added novel stimulus as social enhancement option; included column on Enrichment Log
- Added labels to appendices
- Updated Example of Canine Enrichment Log
- Updated Example of Acceptable Toys

Appendix 1: Example of Canine Enrichment Log

FOBRL Canine Enrichment Log Room: _South_____

December 2017	Monday		Tuesday		Wednesday		Thursday		Friday		Exposure to Novel Stimuli?
	TR	R	TR	R	TR	R	TR	R	TR	R	
Week 1 (4-8)											
Notes/ Animal IDs											
Week 2 (11-15)											
Notes/ Animal IDs											
Week 3 (18-22)											
Notes/ Animal IDs											
Week 4 (25-29)											
Notes/ Animal IDs											

TR= Toy Rotation Record toy rotation as it occurs once a week. (*initial box when toy rotation is completed*)

R= Radio/CD music per week. Animals are given a min. 30min per week. (Time can be recorded or initial box if full 30 min was given on one day.)

Exposure to Novel Stimuli. Persons unfamiliar to the dogs walk through the room for socialization purposes. Initial and date if completed.

Weekly Toy Rotation

Week 1   Week 2   Week 3   Week 4

Reviewed [weekly] by (supervisor or designee): _____ _____ _____ _____

Appendix 2: Example of Canine Exercise Log

Canine Exercise Log

Month: _____ Year: _____ Bldg: _____ Room: _____

Animal ID		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	Temp.																															
	Time																															
	Initials																															
Yard/Walk (Circle one)		Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W
	Temp.																															
	Time																															
	Initials																															
Yard/Walk (Circle one)		Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W
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Yard/Walk (Circle one)		Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W
	Temp.																															
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Yard/Walk (Circle one)		Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W
	Temp.																															
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	Initials																															
Yard/Walk (Circle one)		Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W
	Temp.																															
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	Initials																															
Yard/Walk (Circle one)		Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W
	Temp.																															
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Yard/Walk (Circle one)		Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W
	Temp.																															
	Time																															
	Initials																															
Yard/Walk (Circle one)		Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W	Y W

Reviewed **weekly** by supervisor or designee

_____ _____ _____ _____
Initials & Date   Initials & Date   Initials & Date   Initials & Date   12/21/2017

Appendix 3: Example of Acceptable Toys
(Not meant to be an all-inclusive list of approved toys)

Dog Toys

Large Kong   Extreme Ball   Stuff-a-ball   Goodie Bone

Goughnut   Best-Balls

Appendix 4: Example of "No Bed" Cage Card

No Bed

Reason:
☐ Incompatibility/Soiling

☐ Veterinary/Health
concern

☐ Other _____

Ferret Environmental Enhancement Plan

University of North Carolina- Chapel Hill

Origination Date: October 12th, 2015

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for ferrets in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall well-being of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).
   a. **Social Enhancement**:
      i. Ferrets are paired or group housed in their enclosures.
      ii. In some cases, a Ferret may be singly housed. Examples include:
         1. Incompatibility.
         2. Health concerns.
         3. An approved exception described in the IACUC protocol.
      iii. Every week, each ferret may be brought out of its enclosure for at least 10-15 minutes of supervised play, provided it is not contraindicated by research goals. Playtime allows the animal(s) to have socialization with staff and the opportunity to play with interactive toys, as well as encourages physical activity.
         1. Pregnant and nursing ferrets will not receive playtime.
         2. Ferrets that have had surgery will not have playtime for at least 5 days post-op.

3. Quarantined ferrets will not receive playtime. They may receive playtime after they are released from quarantine.

b. **Non-Social Enhancement:** Studies demonstrate that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).

    i. A different toy should be rotated into the enclosures at least weekly, ideally 2-4 times per week unless it contraindicates research goals (e.g. Kong®, Flexi-Keys®, Dumbbell, Cyclone Chew) to help preserve the items novelty as well as provide different opportunities for ferrets to engage in species-specific behaviors.

    ii. Ferrets are provided with a hammock or soft bedding (e.g. Fleece Cozy®) and may also have a tunneling device (e.g. PVC elbow) unless it is contraindicated by research goals.

        1. Ferrets with head caps will have a nest box with Wypalls® provided, unless contraindicated by research goals.

            i. Ferrets that have head caps will not have a hammock, soft bedding, or tunneling device. An exception for soft bedding is made for nursing kits with head caps because the soft bedding is required for warmth.

        2. Pregnant and nursing ferrets are provided a nesting box with soft bedding. They will not have toys, hammock, or tunneling device due to these items being a hazard for kits.

c. **Documentation:**

    i. Toy rotation and playtime are all documented on the monthly ferret enrichment logs (attached). These are located on the door of the animal holding rooms.

    ii. Provision of toys, soft bedding/hammock and any other environmental enrichment provided to quarantined ferrets is documented on the Quarantine Ferret Enrichment log. It is located on the door of the animal holding room.
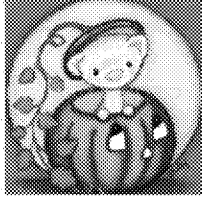
References

1) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.
2) Stewart, KL and K. Bayne. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.
3) Beaver, BV. Environmental Enrichment for Laboratory Animals. ILAR News 1989; 31(2):5-11.

Changes to Version Dated 08-23-17

- Added that toys might not be rotated if it contraindicates research goals
- Updated examples of toys based on current availability
- Added exception for nursing kits with head caps to receive soft bedding due to needed warmth
- Updated examples of enrichment log and ferret toy signs

Example of Ferret Enrichment Log

Oct-17	Monday		Tuesday		Wednesday		Thursday		Friday	
	TR	PT	TR	PT	TR	PT	TR	PT	TR	PT
Week 1 (2-6)										
Notes/ Animal IDs										
Week 2 (9-13)										
Notes/ Animal IDs										
Week 3 (16-20)										
Notes/ Animal IDs										
Week 4 (23-27)										
Notes/ Animal IDs										

Ferret Enrichment Log   **Room: _SB17A__**

TR (Toy Rotation): Record toy rotation as it occurs *at least* once a week *(initial box when toy rotation is completed)*

PT (Play Time): Animals have access to area larger than home cage to play for 10-15 min per week with other conspecifics as appropriate

ANIMALS ON WATER DEPRIVATION DO NOT GET PLAYTIME!

Time/minutes can be recorded, or initial box if full time was given. List Ferret ID's for those taken out for PT, indicate in the notes section if animals

were at lab that day. Ferrets that have had surgery should not have playtime for 5 days post-op, after which limit to small toys only in playpen.

Animals that have had surgery should not have a fleece square or tunneling device in their enclosure.

Wype-alls may be used in place of fleece.

Lab will remove any toys deemed inappropriate after surgery and indicate when it is okay to replace them in pens.

Soft bedding/hammock or tunneling device are always in cages unless indicated by lab or after surgery

Pregnant/nursing ferrets will be provided with a nest box and soft bedding.

Weekly Toy Rotation

Week 1	Week 2	Week 3	Week 4

Example of Quarantine Ferret Enrichment Log

Ferrets must have any of the following toys while in quarantine:
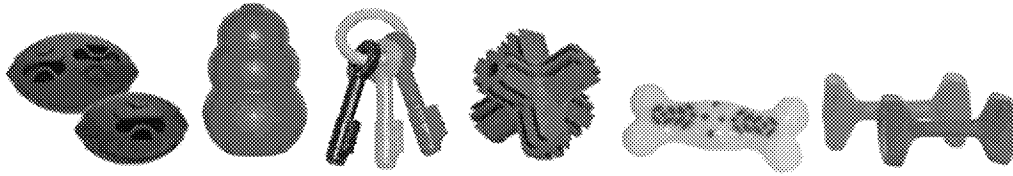
They should have soft bedding or a hammock:
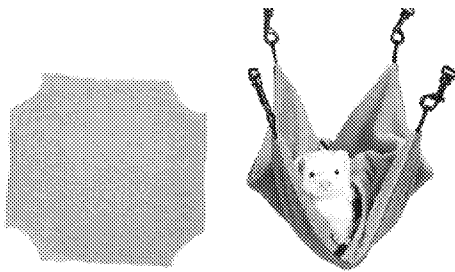
They may also have a tunneling device:
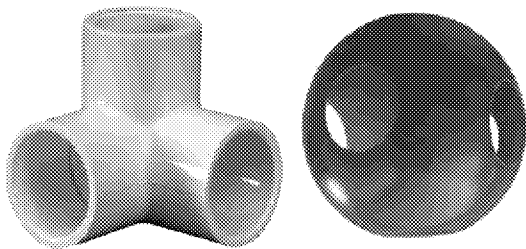
Ferrets in Quarantine are exempt from playtime.

Please initial to indicate ferrets were given enrichment:

Week of arrival _____ Initials _____

If the quarantine period extends past one week, please initial below to indicate enrichment was rotated.

Week 2 _____ Week 3 _____ Week 4 _____

Examples of Approved Ferret Toys

Ferret Toys

Playtime toys:
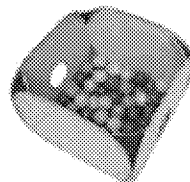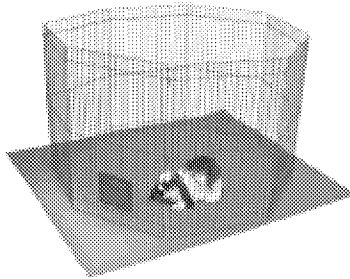
Pop-N-Play
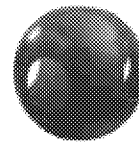
Ferret Ball
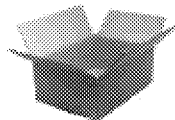
Boxes

Assorted small cat toys/fuzzy mice, etc.

Super Thru-way

Ferret Toys
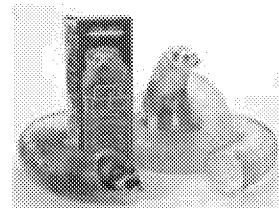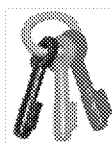
Flexi-Keys

Small Kong

Jump 'n Jack

Busy Buddy Football

Small Durachew
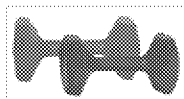
Dumbbell
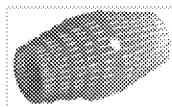
Cyclone Chew
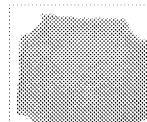
Fleece Cozy
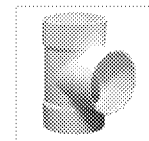
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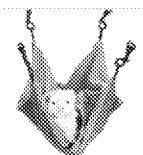
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Nylon Bone
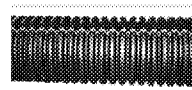
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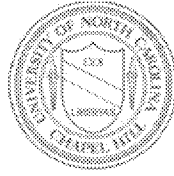
Fish Environmental Enhancement Plan

University of North Carolina-Chapel Hill

Origination Date: November 16, 2016

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011)[1] states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."[1]

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for all fish in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall well-being of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).[2] All fish should be provided with at least one form of the following enrichment:
   a. **Social Enhancement**: Many fish species, including zebrafish, are very social animals, preferring to be with other fish especially during shoaling and spawning (Spence and Smith 2007, as cited by Reed and Jennings 2010). Thus, the social behavioral of each particular species should be evaluated when devising a social enhancement plan.
      i. Members of social species should be housed in groups
      ii. In certain instances, a fish may be singly housed. Examples include:
         1. Incompatibility with tank mates.
         2. Health concerns
         3. An approved exception described in the IACUC protocol.
         4. Non-social fish species.
      iii. If a fish must be singly housed, visual contact with other fish may be

provided, as long as they are a social species.

b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).[3]

    i. Fish may be provided a place to take cover, to be used as hiding places and to reduce aggression. Such hiding places may include:

        1. Plastic or live plants

        2. Floating items to provide cover from above (e.g. lily pad or driftwood)

        3. Rocks, flower pots, PVC pipes, synthetic caves

    ii. Fish may be provided with substrate in spawning tanks or housing tanks (e.g. marbles, synthetic yarn, gravel)

All enrichment added to the tank must be made of a substance that will not leach toxins into the water

c. **Dietary Enrichment:** Zebrafish larvae chase and catch prey, while adults feed on small crustaceans, insect larvae, and algae (Reed and Jennings 2010).

    i. Live feed such as rotifers may be fed to larvae and juvenile zebrafish to allow them to express their hunting instinct.

    ii. Cichlids and pupfish may be provided live feed such as baby brine shrimp.

d. **Documentation:** If fish do not receive any form of the above enrichment, the lab staff is responsible for proper documentation of the lack of enrichment including a description of the animals excluded and the reason for their exclusion. Reasons for exclusions of small populations include health issues or incompatibility. If a larger group is to be exempted from an enrichment plan a valid reason for the exception will be described in the approved animal use protocol.

References

National Research Council, Institute of Laboratory Animal Research. (2011). *Guide for the Care and Use of Laboratory Animals.* Washington, DC: National Academy Press.

Reed, B., & Jennings, M. (2010). *Guidance on the Housing and Care of Zebrafish (Danio rerio).* Research Animals Department- RSPCA.

Stewart, K., & Bayne, K. (2004). Environmental Enrichment for Laboratory Animals. In J. Reuter, & M. Suckows, *Laboratory Animal Medicine and Management.* IVIS.
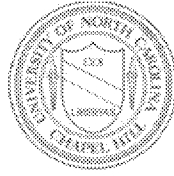
Guidelines for Rabbit Social Housing

University of North Carolina-Chapel Hill

Origination Date: February 16, 2017

Purpose: Rabbits at UNC are to be socially housed whenever possible, unless there is an IACUC exception listed in the protocol. Post-weaning males may be pair housed, with increased monitoring as they approach sexual maturity (10-20 weeks). Adult males and females should not be housed together, but can briefly be placed together in the same cage for breeding purposes.

Guidelines:
a. Researchers are encouraged to purchase socially housed, young animals whenever possible. If possible, they should work with the vendor to keep pairs together post-weaning.
b. For young rabbits no older than 15 weeks and weighing no more than 2-3 kg, social pairing attempts will be made upon arrival into the animal facility to take advantage of shipping stress.
   i. Rabbits will be housed in adjoining cages with divider panels removed.
   ii. If animals were not pre-paired from the vendor, urine from a male rabbit should be used to scent-mark both rabbits to be paired.
      1. The same male rabbit should be used for all animals in a room to avoid competing scents.
      2. Using a soaked gauze pad, spread urine generously on the forehead of each rabbit.
   iii. Animals should be observed for a minimum of 30 minutes without aggressive action immediately after pairing.
      1. Aggressive behavior is most likely to occur within the first hour.
   iv. Animals should be observed at least two more times the first day at a reasonable interval, for at least 10 minutes each time.
   v. If any negative behaviors are observed, a spray bottle with water can be used to discourage these behaviors.
   vi. **Immediately separate if there are lesions to the genitals or eyes, or if there are actively bleeding lesions.**
   vii. Separate pairs showing negative behaviors not discouraged by spray bottle, only temporarily discouraged, or requiring excessive spraying. Retry next day.
   viii. If no negative behaviors are observed, animals may be kept together overnight. Monitoring should be continued at least twice daily for the next week.
   ix. Pairing is considered unsuccessful if it cannot be completed within 2 weeks, or if serious or repeated wounding occurs.
c. If a pair is determined unsuccessful, up to two more attempts may be made with different animals if available.
   i. The above steps will be repeated after moving the animals to clean adjoining cages.

      ii.   If all other pairs are stable, it is more harmful to possibly disrupt stable pairs, therefore the two additional attempts may be omitted.

     iii.   If no compatible pairs are found after the third attempt, the individual animal may be labeled for single housing for reason of incompatibility.

  d. All observations of social interactions will be recorded in RAMS under each animal's Social Housing tab, which is part of the animal's medical record.

  e. Animals that are found incompatible for social housing will have a Single Housing cage card placed on the cage.

  f. For animals born in-house, pairs will be formed at weaning. Observations for these pairs will be completed as described below under "Maintaining Pairs" once they approach sexual maturity (i.e. 10 weeks of age).

Maintaining Pairs

a. Observe pairs once per week for 5-10 minutes.

b. Track the ages of the animals. As sexual maturity occurs at 12-17 weeks of age, increase monitoring of pairs at 10-20 weeks of age to at least twice per week.

c. If any negative behaviors are observed, such as those described above, increase monitoring as determined by DCM management, and increase destructible enrichment to 3 times per week (Monday, Wednesday, Friday). If behaviors do not improve, increase destructible enrichment to daily.

Singly Housed Rabbits

a. Dividers with perforated holes may be used for protected contact.

b. May use additional enrichment, such as autoclaved cardboard; hay in a ball or cardboard tube, box, or paper bag; frozen produce; lavender essential oil on corner of pan liner (NEVER on rabbit).

c. Protected contact playtime, as described in Rabbit Environmental Enhancement Plan.

Normal Dominant Behaviors (Not Negative/Aggressive)

a. One rabbit mounting the other

b. One rabbit chasing the other

c. One rabbit pinning and grooming the other

Behaviors to watch for when social housing:

Affiliative (Positive)	Neutral	Aggressive (Negative)
Clear dominant animal	Not interacting (separate quarters)	Mutual chasing
Sharing feeder/enrichment		Difficulty establishing dominance
Grooming each other/self		Fighting
Interacting with enrichment		

References

University of Michigan Animal Care and Use Program. (2016). Strategies for Social Housing of Rabbits. Webinar.

Changes to Version Dated 06-05-17

- Removed distinction for socially housing male versus female rabbits
- Removed "familial" from post-weaning male pair housing
- Clarified that adult males and females will only be placed in the same cage briefly for breeding purposes

Guinea Pig Environmental Enhancement Plan

University of North Carolina- Chapel Hill

Origination Date: August 15th, 2013

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for guinea pigs in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall wellbeing of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 2011).
   a. **Social Enhancement**:
      i. Guinea pigs are paired or group housed in their enclosures.
      ii. In some cases, a guinea pig may be singly housed. Examples include:
         1. Incompatibility.
         2. Documented health concerns.
         3. An approved exception described in the IACUC protocol.
   b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).

     i. Each enclosure is provided with Enviro-Dri® which allows guinea pigs to satisfy the instinct to burrow. If space within the enclosure allows, a shelter should also be used.

     ii. Each enclosure is provided a toy or gnawing object, such as the BioServ® Certified Dumbbell or wooden gnawing block.

     iii. Guinea pigs are housed on solid-bottom cages with contact bedding, unless there is an approved exception described in the IACUC protocol.

c. **Nutritional Enhancement:** "It has been demonstrated that providing foraging opportunities enhances the well-being of the animals by allowing the animals' additional control over their environment" (Stewart 2004).

     i. In order to help improve and maintain gut motility, guinea pigs are offered autoclaved Timothy hay at least once a week.

     ii. In addition to hay, guinea pigs should receive a novel fruit or vegetable from the following list, at least once a week.

         1. <u>Nutritional Enhancement List</u>: apple, carrot, celery, kale, bell pepper with seeds removed, cucumber, and others as approved by a DCM Veterinarian. Fruits should be limited to once weekly feeding.

         2. These items shall be prepared according to the DCM "Washing Fruits and Vegetables" SOP.

d. **Documentation:**

     i. Weekly hay distribution and weekly sanitization of toys is documented on the Guinea Pig Enrichment Log. It is located in the binder near the door of the animal holding room.

References

1) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.

2) National Research Council, Institute of Laboratory Animal Research, The Psychological Well-Being of Nonhuman Primates. Washington: National Academy Press, 1998.

3) Stewart, KL and K. Bayne. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.

4) Beaver, BV. Environmental Enrichment for Laboratory Animals. ILAR News 1989; 31(2):5-11.

<u>Changes to Version Dated 06-17-16</u>

- Replaced 'hidebox may' with 'shelter should'
- Added at least once weekly fruit and vegetable to Nutritional Enhancement
- Created Nutritional Enhancement List and Enrichment/Enhancement log for GPs in standard and BSL3 housing
- Added example of guinea pig enrichment log as Appendix 1

Appendix 1: Example of Guinea Pig Enrichment Log

Guinea Pig Enrichment Log　　　　Room: _____

Mar-18	Monday			Tuesday			Wednesday			Thursday			Friday			Sat	Sun
	TR	NE*	H**	TR	NE*	H**	TR	NE*	H**	TR	NE*	H**	TR	NE*	H**	H**	H**
Wk 1 (5-11)																	
Fruit/Veg																	
Notes/ Animal IDs																	
Wk 2 (12-18)																	
Fruit/Veg																	
Notes/ Animal IDs																	
Wk 3 (19-25)																	
Fruit/Veg																	
Notes/ Animal IDs																	
Wk 4 (3/26-4/1)																	
Fruit/Veg																	
Notes/ Animal IDs																	

TR=Toy Rotation. Initial when toy and/or nesting material is changed out. (i.e. during regular cage change)
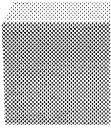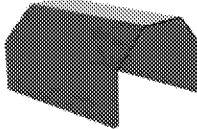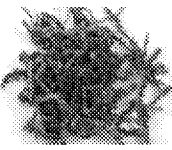
Fruit/Veg. Indicate food item given; alternate type of fruit given weekly. DO NOT GIVE FRUIT MORE THAN ONCE A WEEK.

NE=Nutritional Enhancement. Initial box for each day given, in addition to filling out Fruit/Veg box

***(Give NE 3X/week when possible, but at least once weekly)**

H=Timothy Hay. Initial box for each day given. Hay should be given at least once per week.

****(Give hay daily when possible, but at least once weekly)**

Examples of rotational toys	Examples of ever-present enrichment
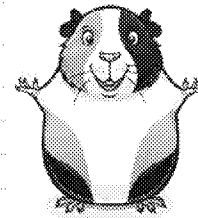
Reviewed [wkly] by (sup/designee):

_____ _____ _____ _____

New World Non-Human Primate Environmental Enhancement Plan

University of North Carolina- Chapel Hill

Origination Date: March 13, 2014

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for New World Non-Human Primates (NHPs) in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall wellbeing of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).
   a. **Social Enhancement**:
      i. NHPs are paired or grouped housed in their enclosures.
      ii. In some cases, an NHP may be singly housed. Examples include:
         1. Incompatibility.
         2. Documented health concerns.

3. An approved exception described in the IACUC protocol, or by veterinary recommendation.
   iii. When social housing is not feasible, interaction with conspecifics will be provided through the use of other non-contact techniques which may include, but are not limited to, the following:
   1. Arrangement of caging within rooms to allow for auditory, olfactory and visual contact between compatible animals.
   2. Use of mirrors in rooms where cage arrangement prevents direct visual contact between animals.
   3. Use of movable socialization panels between cages, which allow the animal's visual and limited tactile contact, but preclude full physical contact.
   4. Extra positive interaction with human caretakers if a single NHP must be housed alone in a room without visual, olfactory, tactile, any auditory contact with conspecifics.

a. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).
   i. Enclosures have various resting boards/perches or swings. Additionally, hiding places provide areas to "flee" from perceived threats or displays of aggression from conspecifics.
   ii. Each pen is provided with species appropriate hanging toys (i.e. Kong® toys, mirrors, tires, stainless steel rattles, various puzzle feeders, etc.).
   iii. A different toy should be rotated into the pen weekly or at time of sanitation (e.g. Kong®, Busy Buddy Football®, Flexi-keys®) to help preserve the items' novelty as well as provide different opportunities for NHPs to engage in species-specific behaviors. Additionally, suspended toys may be rearranged within the enclosure.
   iv. **Sensory Enrichment:** Sensory Enrichment is a way to provide NHPs with opportunities to experience naturalistic stimulation of all five senses (Abee 2012).
      1. NHPs receive at least 30 minutes of radio/music time every week. The music that is played is especially composed for animals (the Mind, Body, Soul series®) or something similar, such as light classical music.
      2. NHPs also receive TV time once a week. DVDs, usually cartoons, are played in their entirety.

b. **Nutritional Enhancement:**
   i. NHPs are also on a rotating schedule of approved fresh fruits and vegetables (see Nutritional Enhancement List). They should receive these items daily with the exception of puzzle feeder days. Fruit treats should be limited and not exceed 2-4 times per week.

ii. NHPs receive **occupational enrichment** (i.e. Foraging board, puzzle feeder, or frozen Kong® treat) twice a week (this may be in lieu of fresh fruits or vegetables). This provides novel and stimulating foraging opportunities for the animals.

c. **Documentation:**
i. Toy rotation, nutritional enhancement, radio and TV time are all documented weekly on the NHP Enrichment Log. It is typically located on the door of the animal holding room.

References
1) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.
2) National Research Council, Institute of Laboratory Animal Research, The Psychological Well-Being of Nonhuman Primates. Washington: National Academy Press, 1998.
3) Stewart, KL and K. Bayne. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.
4) Beaver, BV. Environmental Enrichment for Laboratory Animals. ILAR News 1989; 31(2):5-11.
5) Abee, Christian R, et al, eds. *Nonhuman Primates in Biomedical Research: Biology and Management.* 2nd ed. Vol. 1. Elsevier. 2012.

Appendices

1) Example of Primate Enrichment Log
2) Examples of NHP appropriate toys
3) Nutritional Enhancement List

Changes to Version Dated 05-12-16
- Changed approved single housing wording to say "Documented" health concerns
- Added veterinary recommendation as approved reason for single housing
- Added non-contact technique when only one single New World NHP remains (no pair housing possible)
- Updated Nutritional Enhancement List
- Added Appendix headings

Appendix 1: Example of Primate Enrichment Log

New World Primate Enrichment Log

Building_____   Room_____

PI_____

Week of: _____	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Fruit/Veg Given* (Note type)							
Other Food Treats (note type) ******_Lab note training treats here._							
Occupational /Nutritional Enrichment- Note type (At least 2x/week)							
# Hrs TV (≥30min/wk)							
# Hrs radio (≥30min/wk)							
Weekly Toy Rotation? (Initials)							
Any Abnormal Behaviors (i.e. hair pulling, self-biting, etc)- Indicate ID#							
General Comments							

*Fruits should only be given by DCM 2-4 times a week.
*All Animals Group Housed, unless an approved exception or for veterinary concerns.

Appendix 2: Examples of Acceptable NHP Toys

NHP Toys

Small Kong   Flexi-Keys   Busy Buddy Footballs   Stainless Steel Rattles (Small)   Kong w/ chain   Tire Swing

Shake-a-treat   Super Challenger Ball   Crumble disk holder   Foraging board   Mirror   "Raisin" Ball   Big Red Apple
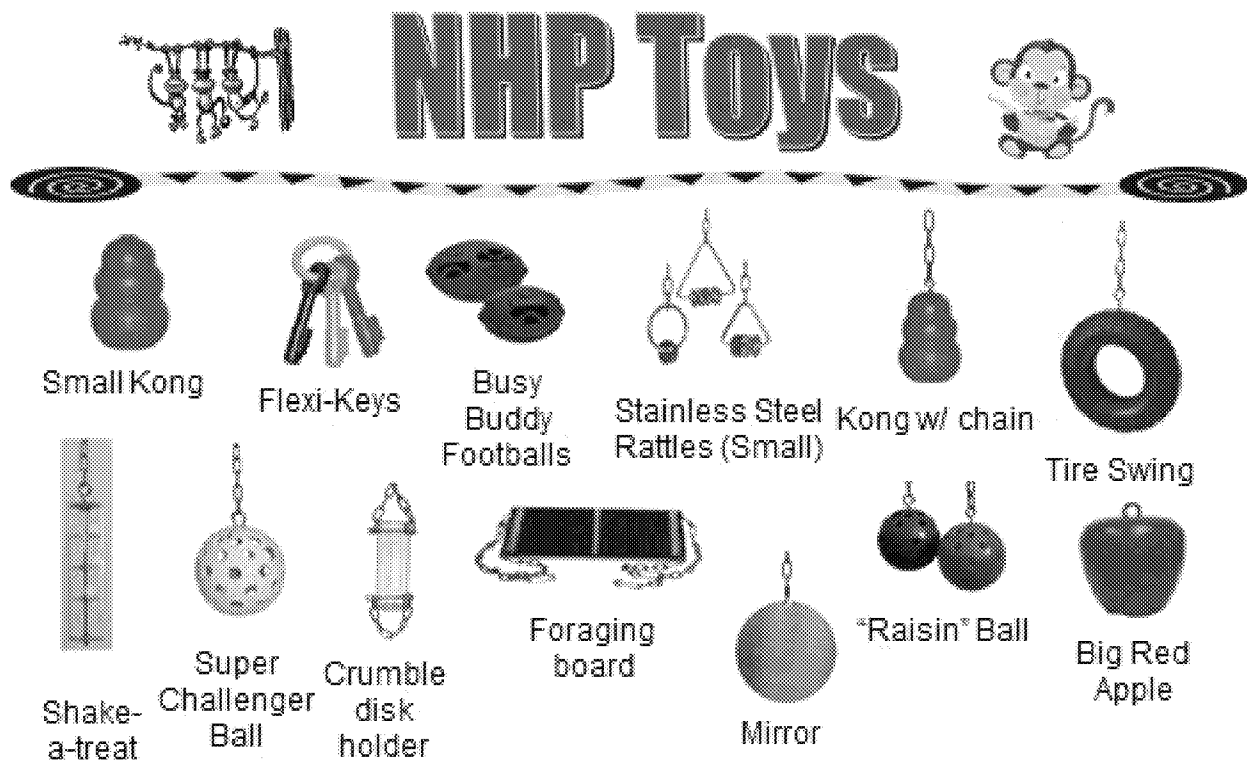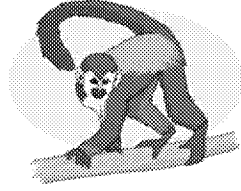
Squirrel Monkey Nutritional Enhancement List

Fruits**

Apples*

Bananas

Blueberries

Grapes

Kiwi

Melon

Oranges

Pears

Raisins

Strawberries

Tomatoes

Any other item approved by veterinarian prior to use

Vegetables

Bell Peppers

Carrots

Celery

Green Beans (organic)

Sweet Potatoes

Other

Peanuts

Popcorn

Marshmallows

Yogurt

Jell-O

Mealworms

Hard Boiled Eggs

Foraging Mix

*Apples have shown some evidence of association with bloat, so should be limited.

**Please try to avoid giving too much fruit in a week (more veggies than fruit).

All fruits and vegetables are to be prepared according to the DCM SOP "Washing Fruits and Vegetables"

Updated 9/2/15

Old World Non-Human Primate Environmental

Enhancement Plan

University of North Carolina- Chapel Hill

Origination Date: May 12, 2016

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for Old World Non-Human Primates (NHPs) in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall well-being of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).
   a. **Social Enhancement**:
      i. NHPs are paired or grouped housed in their enclosures.
      ii. In some cases, an NHP may be singly housed. Examples include:
         1. Incompatibility.
         2. Health concerns.
         3. An approved exception described in the IACUC protocol.

      iii. There are varying degrees of social housing. The type of appropriate housing will vary based on individual history, research needs, and level of compatibility.

         1. **Full contact housing**- two or more NHPs live together in an enclosure full time.

         2. **Intermittent social housing**- two or more NHPs are housed together some of the time, but separated at other times.

         3. **Limited or protected contact**- animals are housed separately, but may have some contact with each other via grooming panels. These panels may allow them to groom each other but not pass through into each other's areas.

      iv. When social housing is not feasible, interaction with conspecifics will be provided through the use of other non-contact techniques which may include, but are not limited to, the following:

         1. Arrangement of caging within rooms to allow for auditory, olfactory and visual contact between compatible animals.

         2. Use of mirrors in rooms where cage arrangement prevents direct visual contact between animals.

         3. Use of movable socialization panels between cages, which allow the animal's visual and limited tactile contact, but preclude full physical contact.

      v. "Friendly contact with humans provides high-quality environmental enrichment by promoting and fostering mutual trust relationships between human and nonhuman primates" (Liss, et al 2015). Animals may receive positive human interaction outside of husbandry, research, or veterinary procedures. This may be given in the form of Positive Reinforcement Training. Training time should be recorded in a journal.

b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).

    i. Enclosures may have resting boards/perches or swings. Additionally, visual barriers provide areas to "flee" from perceived threats or displays of aggression from conspecifics.

    ii. Each enclosure is provided with species appropriate hanging toys (i.e. Kong® toys, mirrors, tires, stainless steel rattles, various puzzle feeders, etc.). These are hung outside of the cage and are changed at least weekly.

    iii. Two different toys should be rotated into the pen weekly, at time of sanitation (e.g. Kong®, Busy Buddy Football®, Flexi-keys®) to help preserve the items' novelty as well as provide different opportunities for NHPs to engage in species-specific behaviors. Additionally, suspended toys may be rearranged within the enclosure at the time of cage change.

UNC Environmental Enrichment Committee 08/01/2017

iv. **Sensory Enrichment:** Sensory Enrichment is a way to provide NHPs with opportunities to experience naturalistic stimulation of all five senses (Abee 2012).

    1. NHPs receive at least 30 minutes of radio/music time every week. The music that is played is especially composed for animals (the Mind, Body, Soul series®) or something similar, such as light classical music.

    2. NHPs also receive TV time a minimum of once a week. DVDs, usually cartoons, are played in their entirety. Care is taken that the DVD shown does not contain potentially frightening images for the animals (e.g. natural predators).

    3. NHPs may receive scent enrichment (e.g. herbs, spices, aromatherapy). If given, this should be recorded on the enrichment log along with amount of exposure time.

c. **Nutritional Enhancement:**

i. NHPs are also on a rotating schedule of approved fresh fruits and vegetables. They should receive these items daily with the exception of puzzle feeder days. These items may be given whole (e.g. corn on the cob in husk) to provide additional occupational enhancement.

ii. NHPs receive **occupational enrichment** (i.e. Foraging board, puzzle feeder, or frozen Kong® treat, etc.) twice a week (this may be in lieu of fresh fruits or vegetables). This provides novel and stimulating foraging opportunities for the animals.

d. **Behavioral Management and Special Considerations:**

i. **Behavioral Monitoring:** Nonhuman Primates in our care will be monitored closely for any signs of stereotypical or self-injurious behaviors, as well as withdrawal and excessive fearful behaviors.

    1. DCM staff will observe animals daily and report any abnormal behaviors immediately to Vet Services. Examples of abnormal behaviors are posted on the door of the animal room for reference.

    2. If abnormal behaviors are reported, a veterinarian will assess the animal and, upon confirmation of the behavior, will work with the environmental enrichment staff to determine a Special Enrichment Plan (SEP) for management of the behavior.

ii. **Special Considerations:**

    1. **Infants and Juveniles:** There are no breeding programs for NHPs at UNC-CH. Refer to the "Standard Operating Procedure for Non-Human Primate Environmental Enrichment to Promote Psychological Wellbeing".

    2. **Individually Housed NHPs:** If an NHP must be individually

housed, caging should be arranged in a way that the NHP will receive visual, olfactory, and auditory cues from conspecifics.

 iii. **Special Enrichment Plan (SEP):** NHPs on a Special Enrichment Plan (SEP) will receive special enrichment in addition to the normal enrichment detailed above. Only NHPs enrolled in a SEP will be given special enrichment.

  1. Special enrichment will be given at least twice weekly, not on consecutive days.

  2. Special enrichment will consist of nonstandard food treats, indestructible enrichment, and foraging devices reserved only for the SEP. Special enrichment may also include cognitive training (positive reinforcement training).

  3. The animal will be evaluated monthly, and the SEP will be modified as necessary. Evaluation and change to the SEP will be documented in the animal's medical record.

e. **Documentation:**

 i. Toy rotation, nutritional enhancement, radio and TV time are all documented as provided on the NHP Enrichment Log. It is located on the door of the animal holding room.

 ii. If positive reinforcement training is done, it is documented in the training journal, located outside the animal room.

 iii. Veterinary assessment and enrollment in a Special Enrichment Plan will be documented in the animal's individual medical record. All SEP interventions are recorded on a separate Special Enrichment Log.

References

1) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.
2) National Research Council, Institute of Laboratory Animal Research, The Psychological Well-Being of Nonhuman Primates. Washington: National Academy Press, 1998.
3) Stewart, KL and K. Bayne. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.
4) Beaver, BV. Environmental Enrichment for Laboratory Animals. ILAR News 1989; 31(2):5-11.
5) Abee, Christian R, et al, eds. *Nonhuman Primates in Biomedical Research: Biology and Management.* 2nd ed. Vol. 1. Elsevier. 2012.
6) Liss, Cathy, et al, eds. *Comfortable Quarters for Laboratory Animals.* Tenth ed. 2015.

Appendices

1) Example of Primate Enrichment Log
2) Examples of NHP appropriate toys
3) Nutritional Enhancement List
4) Example of NHP Training Log
5) Example of NHP Special Enrichment Log

Changes to Version Dated 05-12-16

- Revised frequency of hanging toy change to weekly

- Added that two different toys should be rotated weekly

- Added "Behavioral Management and Special Considerations" section

- Replaced "Primate Enrichment Log" with revised version

- Replaced "Nutritional Enhancement List" with revised version

- Added example of NHP Special Enrichment Log

- Removed that fruit treats should be limited to 2-4 times per week

- Updated to reflect Division name change on 07-11-17. Didn't change revision date.

UNC Environmental Enrichment Committee 08/01/2017
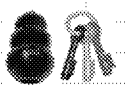
Example of Primate Enrichment Log

Old World NHP Enrichment Log

Bldg _____ Room _____ PI _____ Animal Tech _____ Week Of _____ SEP Reference? (Check if Yes) _____

(Check if Special Enrichment Plan is in effect. SEP Log is separate.)

Activity	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Fruit/Veg (Note type)*							
Occupational/ Nutritional Enrichment (≥2x/wk; Note Type)							
# Hrs TV (≥30min/wk)**							
Hrs Radio (≥30min/wk)**							
Toy Rotation (Initial)***							
Abnormal Behaviors? (Y/N, ID#)							
General Comments							

Fruit/Veg: Refer to Old World NHP Nutritional Enhancement List for approved items. Avoid giving same item more than 1x/wk.

TV and radio should each be given a minimum of 30 mins per week, ideally more.

***Toy rotation.** At least two types of toys should be present, one of each type per animal. These should be **rotated weekly.**

One hanging toy per animal should be present on the outside of the cage, rotated **weekly.**

Week 1   Week 2   Week 3   Week 4

Toy Rotation Week _____

All Animals Group Housed, unless an approved exception or veterinary concerns

UNC Environmental Enrichment Committee 06/20/2017

Examples of Acceptable NHP Toys

Old World NHP Toys

UNC Environmental Enrichment Committee 06/20/2017

Old World NHP Nutritional Enhancement List

Fruits
Apples*
Apricots
Bananas*
Berries (blueberries, raspberries, strawberries)*
Clementines
Coconuts

Frozen mixed fruit – great for blending "smoothies" to hide meds in!
Grapes*
Kiwi
Lemons
Limes
Nectarines

Oranges*
Pineapple
Plums
Pomegranates
Raisins
Tangerines
Tomatoes
Watermelon

Vegetables
Asparagus
Beets
Broccoli
Cabbage*
Carrots*
Cauliflower
Celery*
Corn on the cob
Cucumbers

Frozen vegetables
Green peppers*
Kale
Leeks
Lettuce
Lima beans
Mushrooms
Pickles
Potatoes
Pumpkin

Radishes
Red potatoes
Scallions
Snow peas
String beans
Squash
Turnips
Yams

Other
Acacia Gum
Eggs (hard-boiled)
Jellies (sugar free)
Mustard
Oatmeal

Pasta
Peanuts*
Peanut butter*
Popcorn- may also be popped in room*

Rice cakes
Sugar Cane
Sunflower Seeds

Sugary items – should be given sparingly
Lemonade
Pudding (vanilla)
Raisin Bread

Sherbet (lemon, raspberry)
Cereal (Cheerios, Fruit Loops, Kix, puffed wheat, Raisin Bran, shredded wheat, etc)
Honey

Ketchup
Marshmallow Fluff
Marshmallows*
Marshmallow Peeps
Syrups

**Any other item approved by veterinarian prior to use

All fruits and vegetables will be washed according to the DCM SOP "Washing Fruits and Vegetables"

*Most commonly used items

UNC Environmental Enrichment Committee 06/20/2017

Example of NHP Training Log

NHP Training Log

DATE	ID(s)	ACTIVITY	LENGTH OF TIME	INITIALS

*Record any notes on back

UNC Environmental Enrichment Committee 06/20/2017

<u>**Example of NHP Special Enrichment Log**</u>

NHP Special Enrichment Log

Animal ID: _____	PI: _____	Month/Year: _____

Special Enrichment Plan details:

_____

_____

_____

Date:	Special Enrichment Given (Note type):	Initials:

Special Enrichment Plan is reviewed monthly by veterinarian and modified as needed.

UNC Environmental Enrichment Committee 06/20/2017

Poultry Environmental Enhancement Plan

University of North Carolina- Chapel Hill

Origination Date: October 12, 2015

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for poultry in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall well-being of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 2011).
   a. **Social Enhancement**: According to the Ag Guide (2010), socialized chickens have shown a reduction in stress response and have even demonstrated some disease resistance compared with non-socialized chickens.
      i. Poultry are grouped housed in their enclosures. According to Reinhardt and Reinhardt (2002), group housing should be the default.
      ii. In some cases, poultry may be singly housed. Examples include:
         1. Incompatibility.
         2. Health concerns.
         3. An approved exception described in the IACUC protocol.

iii. Poultry should have positive human interaction to reduce the bird' natural fear response. "Regular gently interactions with chickens reduces fear and facilitates easier, i.e. less stressful handling during procedures." (Reinhardt and Reinhardt 2002).

b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).

   i. According to the Ag Guide, providing appropriate substrate provides poultry with much-needed foraging opportunities and reduces abnormal behaviors such as feather plucking and cannibalism. Additionally, poultry must have enough space for walking, running, flying, and wing-flapping (Reinhardt and Reinhardt 2002). Animals have full access to a room, and are housed on a 3-6 inch layer of pine shavings (or other approved substrate), which have been documented as species-appropriate bedding.

   ii. According to the Ag Guide, laying hens must be provided with nesting boxes with nesting material that can be manipulated, such as straw.

      1. **Sensory Enrichment:** Playing a radio with human voices may be beneficial for chicks, but care should be taken in introducing to older birds as it can increase their fear response (FASS 2010). Animals may receive at least 30 minutes of radio time every week. Selections should feature human voices, such as talk radio or audiobooks. Extreme care should be taken when introducing radio to broiler chickens, as they are particularly neophobic. (FASS 2010).

      2. **Nutritional & Occupational Enhancement:** According to Reinhardt and Reinhardt, "if they do not spend a major portion of the day engaged in foraging activities, chickens tend to peck, pull, and tear at objects or conspecifics, and often develop feather plucking behavior."

         i   Pine shavings or other approved substrate are provided on the floor of the animal room. Food pellets should be scattered throughout the bedding daily to provide foraging opportunities.

         ii "A primary method for promoting exercise in poultry is the provision of perches or other elevated areas that encourage the use of vertical space in the enclosure." (FASS 2010). Per DCM SOP "Care of Chickens", perches should be half buried in shavings or other approved substrate to prevent tipping over.

         iii A box with sand may be provided for poultry to engage in dustbathing, which is important for keeping their feathers in good condition (Reinhardt and Reinhardt 2002).

Documentation:
    a. Nutritional enhancement, radio, and food treats are all documented weekly on the Poultry Enrichment Log. It is located on the door of the animal holding room.

References

1) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.
2) Stewart, KL and Bayne, K. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.
3) Reinhardt, V and Reinhardt, A., eds. Comfortable Quarters for Laboratory Animals. Animal Welfare Institute. Ninth edition, 2002.
4) Federation of Animal Science Societies. The Guide for the Care and Use of Agricultural Animals in Research and Teaching. Third edition, 2010.

Appendices

1) Poultry Enrichment Log Example

Changes to Version Dated 10-12-15

- Added that group housing should be the default for chickens
- Changed name of Activity Sheet to Enrichment Log and replaced with revised version
- Minor wording changes referring to pine shavings or "other approved substrate"
- Updated to reflect Division name change on 07-11-17. Didn't change revision date.

Poultry Enrichment Log

Building_____   Room_____

PI_____   Animal Technician_____

Week of: _____	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Food Treats (note type) **Lab note training treats here.**							
Feed pellets/Meal worms scattered in bedding? (Daily)							
Nesting box with nesting material provided? (Daily)							
Dust bath provided?							
# Hours of Radio							
General Comments							

*All Animals Group Housed, unless an approved exception or for veterinary concerns.

**Meal worms should NOT be given to broiler chickens housed long term due to weight concerns

Rabbit Environmental Enhancement Plan

University of North Carolina- Chapel Hill

Origination Date: October 12th, 2015

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for rabbits in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall well-being of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).
   a. **Social Enhancement**:
      i. Rabbits may be pair or group housed in their enclosures. Age and social history will be taken into account when considering pairing.
      ii. In some cases, a rabbit may be singly housed. Examples include:
         1. Incompatibility.
         2. Health concerns.
         3. An approved exception described in the IACUC protocol.
      iii. Caging design should allow singly housed rabbits to receive visual, olfactory, and auditory cues from their conspecifics.

1. If a rabbit must be housed alone in a room, a mirror may be suspended on the outside of the front of the cage.

    iv. Every week, each rabbit may be brought out of its enclosure for at least 15 minutes of supervised play. Rabbits will not receive playtime if diagnosed with contagious disease, or if it contraindicates research goals. Playtime allows the animal(s) to have socialization with staff and the opportunity to play with interactive toys, as well as encourages physical activity.

1. Pair housed animals may be brought out together for playtime. Singly-housed animals may have protected contact playtime within individual adjacent playpens.
2. Pregnant rabbits may receive playtime until Day 24 of gestation.
3. Nursing rabbits may receive playtime without their kits once the kits are 7 days old.
4. Kits may receive playtime with their mother at 4 weeks of age.

b. **Non-Social Enhancement:** Studies demonstrate that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).

    i. A different toy should be rotated into the enclosures every week (e.g. Dumbbell, Best Ball®, Manzanita wood, Jingle Ball®) to help preserve the item's novelty as well as provide different opportunities for rabbits to engage in species-specific behaviors.

    ii. Rabbits should always have a cage front toy (e.g. Triangle rattle®)

    iii. Rabbits may be given destructible enrichment (e.g. cardboard tube with hay) with veterinary approval.

c. **Sensory Enrichment:**

    i. Rabbits receive at least 30 minutes of radio/music time every week. Any auditory enrichment provided will not exceed normal conversational volume level (approximately 60 dB). Music with strong beats or talk radio with loud voices (screaming, arguing) should be avoided ("Environmental Enrichment Guidelines" 2018).

d. **Nutritional Enhancement:**

    i. In order to help improve and maintain gut motility, Rabbits are offered autoclaved Timothy Hay 7 days per week.

    ii. Rabbits are also on a rotating schedule of approved fresh fruits and vegetables (see attached Rabbit Nutritional Enhancement List). They should receive these items 3 times per week, preferably on Monday, Wednesday, and Friday.

e. **Documentation:**

    i. Toy rotation, playtime, nutritional enhancement, and/or radio time are all documented on the monthly rabbit enrichment log (attached). This is located on the door of the animal holding room.

References

1) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.
2) Stewart, KL and K. Bayne. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.
3) Beaver, BV. Environmental Enrichment for Laboratory Animals. ILAR News 1989; 31(2):5-11.
4) "Environmental Enrichment Guidelines." Environmental Enrichment Guidelines, University of California, Berkeley. Animal Care and Use Program, 14 Mar. 2018, acuc.berkeley.edu/guidelines/environmental_enrichment.pdf.

Changes to Version Dated 06-11-18

- Removed range of time for play outside enclosure (now says 15 minutes)
- Updated sensory enrichment statement to be consistent with other EE plans in regards to decibel level and type of music/radio allowed
- Removed range of days to give hay (should give 7 days a week) and fruits/veggies (should give 3 times per week)
- Added that nutritional enhancement is documented on the enrichment log
- Updated reference list
- Updated rabbit enrichment log and rabbit nutritional enhancement list

Example of Rabbit Enrichment Log

Rabbit Enrichment Log   Room _Taylor B22_

Feb-19	Monday			Tuesday			Wednesday			Thursday			Friday			Sat	Sun
	TR	R	H	TR	R	H	TR	R	H	TR	R	H	TR	R	H	H	H
Week 1 (4-10)																	
Fruit/Veg	Parsley						Bell Pepper						Pears				
Notes/ Animal IDs																	
Week 2 (11-17)																	
Fruit/Veg	Kale						Carrots						Apples				
Notes/ Animal IDs																	
Week 3 (18-24)																	
Fruit/Veg	Squash						Bell Peppers						Grapes				
Notes/ Animal IDs																	
Week 4 (25-3/3)																	
Fruit/Veg	Endive						Carrots						Apples				
Notes/ Animal IDs																	

Toy Rotation (TR): Record toy rotation as it occurs at least once a week (initial box when toy rotation is completed)

Radio/Music (R): Animals are given 30 minutes *minimum* per week. Time can be recorded or initial box if full time was given on one day

Timothy Hay (H): Record for each day given. Hay should be given daily.

Weekly Toy Rotation	Week 1	Week 2	Week 3	Week 4

A cage front toy should always be present (e.g. Triangle)

Weekly review by supervisor or designee: _____   _____   _____   _____

Rabbit Nutritional Enhancement List

Apples*

Pears*

Seedless Grapes

Cabbage

Kale**

Romaine

Squashes

Bell Peppers (seeds removed)

Carrots

Celery

Cucumbers

Mint

Parsley

Cilantro

Basil

Endive

Swiss chard

Watercress

Timothy Hay Cubes

Veggie Chips (Bio-Serv)

Alfalfa, hay or cubes

Arugula

Banana, fresh or chips

Brussels Sprouts

Corn

Cranberry

Crumble Disk (Bio-Serv)

Escarole

PrimaTreat (Bio-Serv)

FruitTopia treat (Bio-Serv)

Green Beans

Kiwi

Mardi Gras Foraging Mix (Bio-Serv)

Nutra Block (Bio-Serv)

Papaya, fresh or dried

Peanut, unsalted with or without shell

Pineapple

Popcorn

Pumpkin

Pumpkin Seeds

Raisins

Sunflower Seeds, with or without shells

Sweet Potato

Taro

Veggie Bites (Bio-Serv)

Any other nutritional enhancement approved by veterinarian prior to use

Please try to avoid giving fruit more than once a week (on a MWF schedule).

*Please cut into smaller pieces (i.e. 1/6th of an apple per rabbit), and remove seeds.

**Do not give Kale more than once a week.

All fruits and vegetables are to be prepared according to the DCM SOP "Washing Fruits and Vegetables"

Rodent Environmental Enhancement Plan

University of North Carolina-Chapel Hill

Origination Date: August 23rd, 2013

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011)[1] states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."[1]

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for all rodents in our care. This includes mice, rats, hamsters and gerbils.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall well-being of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).[2]
   a. **Social Enhancement**:
      i. Rodents are paired or grouped housed in their enclosures.
      ii. In certain instances, a rodent may be singly housed. Examples include:
         1. Incompatibility with cage mates.
         2. Breeding paradigm.
         3. Health concerns.
         4. An approved housing variation as described in the Animal Care Application (ACAP) section 6.05.
   b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).[3] Additionally, nesting material allows rodents to construct suitable microenvironments for resting and breeding (Baumans 2005)[4]. Rats, hamsters, and gerbils should have at least one form of either nesting material or shelter. Mice should have one type of nesting material and, when possible, adding another form of dissimilar enrichment is preferred.

  <u>Options include, but are not limited to:</u>
   i. Mouse:
    1. Nesting material* (e.g. Nestlets® or brown crinkled paper) –
     • Nesting material should be provided unless it contraindicates research goals and has an IACUC exception.
     • Nesting material is required for breeding cages.
     • <u>Note</u>: Nude mice cannot have Nestlets® but may have brown crinkled paper
    2. Hut or other approved shelter
    3. Gnawing Device (e.g. Manzanita wood)
   ii. Rat:
    1. Nesting material* (e.g. loose or prepackaged brown crinkled paper)
    2. Rat tube or other approved shelter
    3. Gnawing Device (e.g. Durachew®, Manzanita wood)
   iii. Hamster and Gerbil:
    1. Nesting material* (e.g. loose or prepackaged brown crinkled paper)
    2. Rat tube or other approved shelter
   iv. Rodent species may be given gnawing enrichment, such as Nylabones®, Durachews®, Manzanita wood, or other items upon request by researchers as determined by Vet Services.

   * When using nesting material, use an amount appropriate for the species (i.e. a pinch for mouse cages, or prepackaged amount for larger rodent species) to allow them to build a nest but not prevent adequate animal observations.

 c. **Dietary Enrichment:**
   i. Rodents may be given novel food enrichment by researchers (e.g. irradiated sunflower seeds).

 d. **Documentation:**
   i. Documentation will only be necessary if all enrichment is intermittent or not present due to protocol exceptions.
    1. Refer to the IACUC Exception Policy for details on properly documenting exceptions.

References

1. National Research Council, Institute of Laboratory Animal Research, *Guide for the Care and Use of Laboratory Animals*. Washington: National Academy Press, 2011.
2. National Research Council, Institute of Laboratory Animal Research, *The Psychological Well-Being of Nonhuman Primates*. Washington: National Academy Press, 1998.

Additional Resources

1. Stewart, KL and K. Bayne. *Environmental Enrichment for Laboratory Animals*. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.
2. Baumans, Vera. 2005. *Environmental Enrichment for Laboratory Rodents and Rabbits: Requirements of Rodents, Rabbits, and Research*. In: ILAR Journal. 46:162-170.

<u>Changes to Version Dated 11-30-17</u>

- Clarified single housing example of approved housing variation by including ACAP section number
- Added that absence of nesting materials is accompanied by IACUC exception
- Added that gnawing devices requested by researchers will be determined by Vet Services
- Documentation is only necessary if <u>all</u> enrichment is intermittent/not present

Sea Turtle Environmental Enhancement Plan

University of North Carolina-Chapel Hill

Origination Date: February 8, 2017

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011)[1] states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."[1]

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for all sea turtles in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall well-being of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).[2]
   a. **Social Enhancement**:
      i. Sea turtles are not considered a social species. In the wild they are solitary animals except during migration. Social housing is therefore not imperative for this species.
   b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).[3]
      i. "Hiding places are essential for sea turtles" (Bluvias and Eckert 2010). Turtles may be provided with a shelter at the bottom of the holding tank, such as a "rest hop." Additionally, they may use the standpipe in the tank for hiding and resting.

ii. Sea turtles may be provided with a device (e.g. Super Saucer or Bio-Serv rabbit hut) for resting at the surface of the tank or while submerged.

iii. Sea turtles may be provided with novel objects to engage in species-typical behaviors.

iv. Enrichment provided to the sea turtles may not contain food, magnets, or ferrous metals, per the Lohmann Lab.

c. **Dietary Enrichment**

i. Sea turtles are provided with a nutritionally balanced diet as appropriate for the species. The composition of the food allows it to sink to the bottom of the tank, which encourages natural diving and foraging behaviors.

d. **Documentation:**

i. Documentation will only be necessary if enrichment is intermittent or not present due to protocol exceptions.

1. Refer to the IACUC Exception Policy for details on properly documenting exceptions.

References

1) Bluvias, JessieE. and Karen L. Eckert. 2010. Marine Turtle Trauma Response Procedures: A Husbandry Manual. Wider Caribbean Sea Turtle Conservation Network (WIDECAST) Technical Report No. 10. Ballwin, Missouri.100pp.

2) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.

3) Stewart, KL and K. Bayne. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.

Changes to Version Dated 05-23-17

- Added example of using Bio-Serv rabbit hut in tank
- Updated terminology to include use of "novel objects to engage in species-typical behaviors"
- Added stipulations for enrichment per Lohmann Lab

Sheep Environmental Enhancement Plan

University of North Carolina- Chapel Hill

Origination Date: June 19, 2014

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for sheep in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall well-being of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 2011).
    a. **Social Enhancement**: "A Sheep needs to be with other sheep...Sheep always try to maintain uninterrupted visual contact with at least one other sheep..."(Reinhardt and Reinhardt 2002).
        i.   Sheep are paired or grouped housed in their enclosures.
        ii. In some cases, a sheep may be singly housed. Examples include:
            1. Health concerns.
            2. An approved exception described in the IACUC protocol.
        iii. When social housing is not feasible, non-contact techniques which may include, but are not limited to, the following:

1. Use of mirror panels in rooms. "The use of mirror panels during isolation can reduce the magnitude to this psychologically distressing situation" (Reinhardt and Reinhardt 2002).
2. Use of a deer decoy or "dummy" within room.
3. Housing in a manner that allows singly housed sheep to receive visual, olfactory, and auditory cues from their conspecifics. They should also be allowed to have limited tactile contact (i.e. able to touch snouts).
4. Extra positive interaction with human caretakers. Sheep should always have positive interaction with their caretakers, but additional time should be given to single housed sheep. (Liss, et al 2015). If a single sheep must be housed alone in a room without visual, olfactory, and auditory contact with conspecifics, use of a mirror or decoy and a minimum of 15 minutes social interaction with human caretakers is required daily.

b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).
   i. Sheep have full access to a room, and are housed on shavings (or other approved substrate), which have been documented as species-appropriate bedding.
   ii. A different toy should be rotated into the enclosures every week (e.g. ball, Kong®, etc) to help preserve the items' novelty as well as to provide different opportunities for sheep to engage in species specific behaviors.
   iii. The *Guide for the Care and Use of Agricultural Animals in Research and Teaching* states that, "Wool biting seems to be a redirected behavior of confined sheep. Strategies that have been used to prevent or stop wool biting include hanging chains above the surface of the pen, adding objects to the pen (e.g., basketballs, plastic bottles, or chewing bars), playing music, and altering the diet."
      1. **Sensory Enrichment:** Sheep receive at least 30 minutes of radio/music time every week. Any auditory enrichment provided will not exceed normal conversational volume level (approximately 60 dB). Music with strong beats or talk radio with loud voices (screaming, arguing) should be avoided ("Environmental Enrichment Guidelines" 2018).
      2. **Nutritional & Occupational Enhancement:** The *Ag Guide* also states that, "Devices that provide feed supplements when manipulated by licking or pushing with the head may occupy the animals' attention." Sheep can spend approximately 8 hours a day grazing and travel several kilometers (Reinhardt 2002).
         i. A Buster Ball®, or similar device, may be suspended from the ceiling and filled with Likit® flavors in an effort to simulate foraging.

ii   Additionally, a device such as a large 10" diameter ball with three, 3" holes (Ferret Ball®) may be stuffed with hay to allow the sheep an opportunity to push it around and "work" for it. A hay bag may also be used.

iii   Food treats like raisins and Fig Newtons, or other nutritional enhancement approved by veterinarian prior to use, may also be provided as a positive reinforcement reward by DCM staff and research staff.

iv   Salt and/or mineral blocks may be used if not contraindicated by research objectives. NOTE: Copper levels of 0.01mg/g (10ppm) are TOXIC. Check copper content of feeds and minerals before giving.

4. **Documentation:**
   a. Nutritional enhancement, radio, and food treats are all documented on the weekly Sheep Enrichment Log. It is located on the door of the animal holding room.

References

1) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.
2) "Environmental Enrichment Guidelines." Environmental Enrichment Guidelines, University of California, Berkeley. Animal Care and Use Program, 14 Mar. 2018, acuc.berkeley.edu/guidelines/environmental_enrichment.pdf.
3) Stewart, KL and Bayne, K. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows,eds. Laboratory Animal Medicine and Management. IVIS, 2004.
4) Reinhardt, V and Reinhardt, A., eds. Comfortable Quarters for Laboratory Animals. Animal Welfare Institute. Ninth edition, 2002.
5) Liss, C., Litwak, K., Tilford, D., and Reinhardt, V., eds. Comfortable Quarters for Laboratory Animals. Animal Welfare Institute. Tenth edition, 2015.
6) Reinhardt, V. and Reinhardt, A., eds. Comfortable Quarters for Laboratory Animals. Animal Welfare Institute. Tenth Edition, 2015.
7) Federation of Animal Science Societies. The Guide for the Care and Use of Agricultural Animals in Research and Teaching. Third edition, 2010.

Appendices

1) Example Sheep Enrichment Log
2) Examples of Sheep Appropriate Toys
3) Sheep Nutritional Enhancement List

Changes to Version Dated 04-20-17

- Added two non-contact techniques of housing to allow for "visual, olfactory, and auditory cues from conspecifics" and "extra positive interaction with human caretakers"
- Added use of toy rotation every week
- Removed statement of sheep being neophobic, negating the need for a toy rotation

- Updated sensory enrichment statement to be consistent with other EE plans in regards to decibel level and type of music/radio allowed
- Added note to check copper level of salt/mineral blocks before giving to sheep to avoid toxicity
- Updated reference list
- Updated example of sheep enrichment log
- Added 2 appendices, "Example of Sheep Appropriate Toys" and "Sheep Nutritional Enhancement List"

Example Sheep Enrichment Log

Sheep Enrichment Log   Building:_____   Room:_____

Jan-19	Monday				Tuesday				Wednesday				Thursday				Friday				Sat	Sun
	TR	S	R	H	TR	S	R	H	TR	S	R	H	TR	S	R	H	TR	S	R	H	H	H
Week 1 (6-13)																						
Buster Ball given:																						
Fruit/Veg:																						
Notes/ Animal IDs																						
Week 1 (14-20)																						
Buster Ball given:																						
Fruit/Veg:																						
Notes/ Animal IDs																						
Week 1 (21-27)																						
Buster Ball given:																						
Fruit/Veg:																						
Notes/ Animal IDs																						
Week 1 (28-1/3)																						
Buster Ball given:																						
Fruit/Veg:																						
Notes/ Animal IDs																						

Toy Rotation (TR): Record toy rotation as it occurs *at least* once a week (initial box when completed)
Socialization (S): If a sheep is housed singly in the room, provide 15 minutes of human social interaction daily.
Radio/CD (R): Animals are given 30 minutes *minimum* per week. Time can be recorded or initial box if full time was given on one day.
Timothy Hay (H): Hay given daily. Stuff hay into foraging toy.
Buster Ball Given: Buster ball with edible Lik-it insert given daily
Fruit/Veg: Write novel food item given, 1-3x per week. Additional treats should be noted here.

Weekly Toy Rotation	Week 1	Week 2	Week 3	Week 4

Mirror panel or decoy provided for single sheep in room (initial and date) _____

Weekly review by supervisor or designee: _____ _____ _____ _____

Examples of Sheep Appropriate Toys
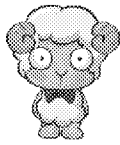
Sheep Toys
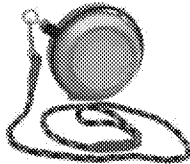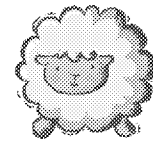
Boredom Buster   Likit refills   Large Flexi-keys   Large "Ferret Ball"   Large Kong
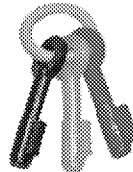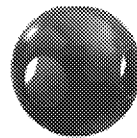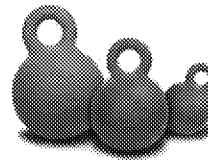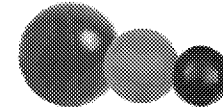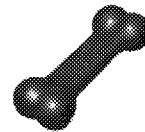
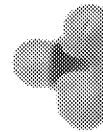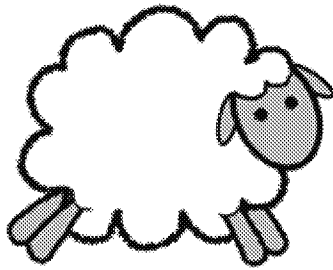DNA Flexer   Big Red Apple   Soft Flex Ball   Best-Balls

Bionic Bone   Dumbbells   Goodie Bone   Tux

Sheep Nutritional Enhancement List

Apple	Mardi Gras Foraging Mix
Banana Chips	Mint
Basil	Papaya
Bell pepper	Parsley
Cabbage	Pear
Carrot	Popcorn
Celery	Pumpkin
Cilantro	Raisin
Cranberry	Romaine
Cucumber	Squash
Endive/Chicory	Sweet Potato
Escarole	Swiss Chard
Fig Newton	Timothy Hay Cubes
Grapes	Veggie Bites, Bio-Serv
Kale	Veggie Chips, Bio-Serv
Likit	**Any item approved by veterinarian prior to use

All fruits and vegetables are to be prepared according to the DCM SOP "Washing Fruits and Vegetables"

Created 4/24/18 Updated 1/4/19
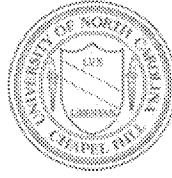
Swine in Long-Term Housing Environmental Enhancement Plan

University of North Carolina - Chapel Hill

Origination Date: October 2, 2015

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for swine housed for longer than 6 months in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall wellbeing of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).
   a. **Social Enhancement**: "Pigs are highly social animals prone to living in stable groupings of sows and their piglets or young bachelor boars. Only older boars tend to live alone in the wild (Ellegaard et al, 2010, as cited by (Croney, 2014)).
      i.   Pigs are paired or grouped housed in their enclosures.
      ii. In some cases, a pig may be singly housed. Examples include:
          1. Incompatibility.
          2. Health concerns.
          3. An approved exception described in the IACUC protocol.

iii. Pigs receive "scratch time" from caretakers each week, using handheld brooms or gloved hands. This may be omitted for individual animals that do not like scratch time, as determined by the facility manager/supervisor. Amount of scratch time is recorded on the enrichment log. "Caretakers can develop positive social contact with pigs by... stroking or scratching pigs that approach." (FASS, 2010).

iv. Pigs may be brought out of their pens for walking exercise. Amount of time out of pen is recorded on the enrichment log.

v. Yucatan pigs should have cocoa butter or baby oil applied to their skin at least once per week, or as needed, to prevent dry skin.

vi. When social housing is not feasible, other techniques will be provided which may include, but are not limited to, the following:

1. Housing in a manner that allows singly housed pigs to receive visual, olfactory, and auditory cues from their conspecifics. They should also be allowed to have limited tactile contact (i.e. able to touch snouts).

2. Extra positive interaction with human caretakers. Pigs should always have positive interaction with their caretakers, but additional time should be given to singly housed pigs. (Reinhardt and Reinhardt 2002).

3. Use of mirror panels in pens (Croney 2014), if a single pig must be housed alone in a room without visual, olfactory, tactile, and auditory contact with conspecifics.

b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).

i. **Toys**

1. A different toy should be rotated into the enclosures every week (e.g. ball, Kong®, etc) to help preserve the items' novelty as well as to provide different opportunities for pigs to engage in species specific behaviors.

2. A cage-front toy and a suspended toy may be provided (e.g. Big Red Apple®, chew chain, triangle rattle, Jolly Ball®) unless contraindicated by research goals.

ii. **Sensory Enrichment**

1. Pigs receive at least 30 minutes of radio/music time every week, except during times at the Frances Owen Blood Research Lab when the radio cannot be heard due to the noise of fans in the animal room (i.e. warmer months). Radio time may be in the form of music or talk radio. The music that is played is especially composed for animals (the Mind, Body, Soul series®) or something similar, such as light classical music.

     iii.   **Nutritional & Occupational Enhancement:** Enrichment that stimulates foraging and exploratory behaviors is important for pigs (Van de Weerd et al., 2003).

         1. A large Kong® toy may be filled with approved food treats listed on the Swine Nutritional Enhancement List, or commercially available food treats specifically for swine.

         2. Pigs may receive fresh fruits and vegetables or other approved food treats, provided this does not contraindicate research goals.

4. Documentation:

    a. Nutritional enhancement, radio, scratch time, walk time, cocoa butter, and food treats are all documented weekly on the Swine Enrichment Log. It is located on the door of the animal holding room.

    b. Treats given must be documented on the enrichment log. DCM staff should refer to the log so as to avoid giving too much of one type of treat.

    c. Individual animals may not like certain aspects of the enhancement plan. Individual preferences should be taken into account.

<div align="center">References</div>

1) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.

2) Croney, C. (2014, Spring). Let's Stay Together: Implications of Social Housing for Laboratory Pig Welfare and Management. *The Enrichment Record*, pp. 14-19.

3) Federation of Animal Science Societies. The Guide for the Care and Use of Agricultural Animals in Research and Teaching. Third Edition, 2010.

4) Stewart, KL and Bayne, K. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.

5) Reinhardt, V. and Reinhardt, A., eds. Comfortable Quarters for Laboratory Animals. Animal Welfare Institute. Ninth Edition, 2002.

6) Van de Weerd, HA and Day, JE. (2009). A review of environmental enrichment for pigs housed in intensive housing systems. *Applied Animal Behaviour Science*, 1-20.

7) Van de Weerd, HA, Docking, CM, Day, JE, Avery, PJ, and Edwards, SA. (2003). A systematic approach towards developing environmental enrichment for pigs. *Applied Animal Behaviour Science*, 101-118.

<div align="center">Appendices</div>

1. Swine Enrichment Log Example
2. Examples of Swine Appropriate Toys
3. Swine Nutritional Enhancement List

Changes to Version Dated 09-16-16

- Revised the use of cocoa butter or baby oil for Yucatan pigs from twice to once weekly
- Update to reflect Division name change on 07-11-17. Didn't change revision date.

Example of Swine Enrichment Log

Swine Enrichment Log   Room: _____

Feb-15	Monday				Tuesday				Wednesday				Thursday				Friday			
	ST	TR	WT	R	ST	TR	WT	R	ST	TR	WT	R	ST	TR	WT	R	ST	TR	WT	R
Week 1																				
Treats Given:																				
Notes/Animal IDs																				
Week 2																				
Treats Given:																				
Notes/Animal IDs																				
Week 3																				
Treats Given:																				
Notes/Animal IDs																				
Week 4																				
Treats Given:																				
Notes/Animal IDs																				

ST= Scratch time per week. Please record amount of scratch time provided weekly and note animal IDs in the Notes/Animal IDs field. Initial box when completed.

TR= Toy Rotation Record toy rotation as it occurs once a week. (initial box when toy rotation is completed)

WT= Walk time per week. If pigs are brought out of pens to walk, please record the amount of time and animal ID in the Notes/Animal IDs field and initial box when completed.

R= Radio/CD music per week. Animals are given a min. 30min per week. (Time per day can be recorded or initial box if full 30 min was given on one day.

Treats Given: Please note any treats given in this space.

Examples of Acceptable Toys

Pig Toys (FOBRL)

Large Best Ball

Large TireBiter

Large Kong Genius

Large Klinker Ball

Swine Nutritional Enhancement List

Apples	Melon
Artichoke	Peas
Arugula	Pears
Asparagus	Popcorn
Avocado (without skin/pit)	Pumpkin
Bananas	Radish
Bean sprouts	Seedless Grapes
Beet	Spinach
Belgian endive	Squash
Bell pepper	Swiss chard
Berries	Sweet potatoes
Broccoli	Tomato
Brussels sprouts	Veggie Chips (Bio-Serv)
Cabbage	Veggie Bites (Bio-Serv)
Carrot	Watercress
Cauliflower	Yogurt
Corn (without cob)	Cookies*
Cucumber	Pudding*
Eggplant	Marshmallows*
Green beans	Twinkies*
Greens (collard, kale, mustard, etc)	Karo Syrup*
Jell-O	Any other nutritional enhancement approved by
Lettuce	veterinarian prior to use

*Should be given in moderation

All fruits and vegetables are to be prepared according to the DCM "Washing Fruits and Vegetables" SOP

Swine in Short-Term Housing Environmental Enhancement Plan

University of North Carolina - Chapel Hill

Origination Date: October 2, 2015

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011) states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for swine housed for fewer than 6 months in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall wellbeing of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).
   a. **Social Enhancement**: "Pigs are highly social animals prone to living in stable groupings of sows and their piglets or young bachelor boars. Only older boars tend to live alone in the wild (Ellegaard et al, 2010, as cited by (Croney, 2014)).
      i. Pigs are paired or grouped housed in their enclosures.
      ii. In some cases, a pig may be singly housed. Examples include:
         1. Incompatibility.
         2. Health concerns.

3. An approved exception described in the IACUC protocol.

    iii. When social housing is not feasible, other techniques will be provided which may include, but are not limited to, the following:

1. Housing in a manner that allows singly housed pigs to receive visual, olfactory, and auditory cues from their conspecifics. They should also be allowed to have limited tactile contact (i.e. able to touch snouts).
2. Extra positive interaction with human caretakers. Pigs should always have positive interaction with their caretakers, but additional time should be given to singly housed pigs. (Reinhardt and Reinhardt 2002).
3. If a single pig must be housed alone in a room without visual, olfactory, tactile, and auditory contact with conspecifics, use of mirror panels in pens (Croney 2014) and minimum 15 minutes social interaction with human caretakers is required daily.

   b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).

    i. A different toy should be rotated into the enclosures every week (e.g. ball, Kong®, etc) to help preserve the items' novelty as well as to provide different opportunities for pigs to engage in species specific behaviors.

    ii. A cage-front toy and a suspended toy may be provided (e.g. Big Red Apple®, chew chain, triangle rattle, Jolly Ball®) unless contraindicated by research goals.

    iii. **Sensory Enrichment:**

1. Pigs receive at least 30 minutes of radio/music time every week. Any auditory enrichment provided will not exceed normal conversational volume level (approximately 60 dB). Music with strong beats or talk radio with loud voices (screaming, arguing) should be avoided ("Environmental Enrichment Guidelines" 2018).

    iv. **Nutritional & Occupational Enhancement:** Enrichment that stimulates foraging and exploratory behaviors is important for pigs (Van de Weerd et al., 2003).

1. A large foraging toy (such as a Kong® toy) may be filled with dispensable approved food treats listed on the Swine Nutritional Enhancement List, or commercially available food treats specifically for swine, to encourage rooting behavior.
2. Pigs are also on a rotating schedule of approved fresh fruits and vegetables. They should receive these items every Monday, Wednesday, and Friday.

4. **Documentation:**

   a. Nutritional enhancement, radio, and food treats are all documented weekly on the Swine Enrichment Log. It is located on the door of the animal holding room.

References

1) National Research Council, Institute of Laboratory Animal Research, Guide for the Care and Use of Laboratory Animals. Washington: National Academy Press, 2011.
2) Croney, C. (2014, Spring). Let's Stay Together: Implications of Social Housing for Laboratory Pig Welfare and Management. *The Enrichment Record*, pp. 14-19.
3) "Environmental Enrichment Guidelines." Environmental Enrichment Guidelines, University of California, Berkeley. Animal Care and Use Program, 14 Mar. 2018, acuc.berkeley.edu/guidelines/environmental_enrichment.pdf.
4) Federation of Animal Science Societies. The Guide for the Care and Use of Agricultural Animals in Research and Teaching. Third Edition, 2010.
5) Stewart, KL and Bayne, K. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.
6) Reinhardt, V. and Reinhardt, A., eds. Comfortable Quarters for Laboratory Animals. Animal Welfare Institute. Ninth Edition, 2002.
7) Van de Weerd, HA and Day, JE. (2009). A review of environmental enrichment for pigs housed in intensive housing systems. *Applied Animal Behaviour Science*, 1-20.
8) Van de Weerd, HA, Docking, CM, Day, JE, Avery, PJ, and Edwards, SA. (2003). A systematic approach towards developing environmental enrichment for pigs. *Applied Animal Behaviour Science*, 101-118.

Appendices

1. Swine Enrichment Log Example
2. Examples of Swine Appropriate Toys
3. Swine Nutritional Enhancement List

Changes to Version Dated 04-04-17

- Added requirement for pig housed alone in a room to have a minimum of 15 minutes of social interaction per day
- Added guidelines for auditory enrichment (levels/types of enrichment)
- Updated stipulation for foraging toy to be filled with dispensable enrichment to encourage rooting behavior
- Added new reference for "Environmental Enrichment Guidelines"
- Updated example of swine enrichment log

Example of Swine Enrichment Log

Swine Enrichment Log Sep-18	Monday			Tuesday			Wednesday			Thursday			Friday			Sat	Sun
Bldg: Berryhill Room: SB-12	TR	S	R	TR	S	R	TR	S	R	TR	S	R	TR	S	R	S	S
Week 1 (3-7)																	
Fruit/Veg		Pear						Carrots						Cookies			
Notes/ Animal IDs																	
Week 2 (10-14)																	
Fruit/Veg		Jell-O						Veggie Chips						Grapes			
Notes/ Animal IDs																	
Week 3 (17-21)																	
Fruit/Veg		Carrots						Romaine						Berries			
Notes/ Animal IDs																	
Week 4 (24-28)																	
Fruit/Veg		Pudding						Carrots						Apples			
Notes/ Animal IDs																	

Toy Rotation (TR): Record toy rotation as it occurs once a week (initial box when toy rotation is completed)

Radio/Music (R): Animals are given 30min *minimum* per week. Time can be recorded or initial box if full time was given on one day

Socialization (S): If a pig is housed singly in the room, provide 15 minutes of human social interaction daily.

| Weekly Toy Rotation | Week 1 | Week 2 | Week 3 | Week 4 |

A cage front toy (e.g. Triangle) and a suspended toy should always be present.

Mirror panel provided for single pig in room (initial and date) _____

Weekly review by supervisor or designee: _____

Examples of Acceptable Toys

Pig Toys

Large Kong

Large Flexi-Keys

DNA Flexer

Jingle Ball

Stainless Steel Rattles (Large)

Big Red Apple

Jolly Ball

Swine Nutritional Enhancement List

Apples	Melon
Artichoke	Peas
Arugula	Pears
Asparagus	Popcorn
Avocado (without skin/pit)	Pumpkin
Bananas	Radish
Bean sprouts	Seedless Grapes
Beet	Spinach
Belgian endive	Squash
Bell pepper	Swiss chard
Berries	Sweet potatoes
Broccoli	Timothy Hay
Brussels sprouts	Tomato
Cabbage	Veggie Chips (Bio-Serv)
Carrot	Veggie Bites (Bio-Serv)
Cauliflower	Watercress
Corn (without cob)	Yogurt
Cucumber	Cookies*
Eggplant	Pudding*
Green beans	Marshmallows*
Greens (collard, kale, mustard, etc)	Twinkies*
Jell-O	Karo Syrup*
Lettuce	Any other nutritional enhancement approved by veterinarian prior to use

*Should be given in moderation

All fruits and vegetables are to be prepared according to the DCM "Washing Fruits and Vegetables" SOP
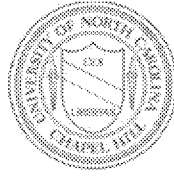
Xenopus Environmental Enhancement Plan

University of North Carolina-Chapel Hill

Origination Date: November 11, 2016

Introduction: The *Guide for the Care and Use of Laboratory Animals* (NRC, 2011)[1] states that, "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."

The *Guide* further states that, "Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."[1]

1. **Purpose**: The objective of this document is to describe a proper and inclusive environmental enrichment program for all *Xenopus spp.* in our care.
2. **Responsibility**: Facility managers/supervisors, husbandry and veterinary staff, and principal investigators/laboratory animal coordinators.
3. **Procedures**: The purpose of environmental enrichment is to enhance the overall well-being of the animals. Exhibiting normal species-specific behaviors in association with environmental enrichment strategies is an indication of well-being. In addition, displaying a balanced temperament, with no evidence of maladaptive behaviors or clinical signs of chronic distress is indicative of the animals' ability to cope with the stressors associated with their social and physical environment (NRC, ILAR, 1998).[2] All *Xenopus* should be provided with at least one form of the following enrichment:

    a. **Social Enhancement**: *Xenopus* should be housed in groups because "efficient group feeding in this species involves feeding frenzies that are not as prevalent when only very small numbers are kept together." (Reed, 2005)
        i. *Xenopus* should be housed in groups large enough to promote efficient feeding, but not so large as to cause fighting and cannibalism. Frogs housed together should be of similar size. Generally a minimum of 5 to 6 frogs per tank is advisable (Reed, 2005). Frog size should be taken into consideration when group housing.
        ii. In certain instances, a *Xenopus* may be singly housed. Examples include:
            1. Incompatibility with tank mates.

2. Health concerns
3. An approved exception described in the IACUC protocol.
b. **Non-Social Enhancement:** Studies have demonstrated that animals have reduced stress if they are provided with the opportunity to have control of their environment (Stewart 2004).[3]
    i. Xenopus may be provided a place to take cover. Larger frogs have been known to chase and fight smaller cohorts when no cover is available, and healthy frogs "seek cover when unexpected vibrations occur in the tank" (Chum, et al., 2013). They appear to prefer having places to hide (Harr, et al., 2015). Such hiding places may include:
        1. Plastic plants
        2. Floating items to provide cover from above (e.g. lily pad)
        3. Tanks are tinted to reduce light, and to prevent startling the frogs from activity outside the tank.
c. **Documentation:** If frogs do not receive any form of the above enrichment, the lab staff is responsible for documenting the reason.
    i. The lab can file for an exception if no enrichment is routine for their colony or subset of a colony.

References

National Research Council, Institute of Laboratory Animal Research. (2011). *Guide for the Care and Use of Laboratory Animals.* Washington, DC: National Academy Press.

Chum, H., Felt, S., Garner, J., & Green, S. (2013). Biology, behavior, and environmental enrichment for the captive African clawed frog (Xenopus spp). *Applied Animal Behaviour Science*, 150-156.

Harr, J., Coyne, L., Chaudry, A., & Halliwell, R. F. (2015, July 27). *A Study of the Impact of Environmental Enrichment on Xenopus Laevis Oocytes.* Retrieved from Animal Welfare Institute: http://awionline.org/

Reed, B. T. (2005). *Guidance on the Housing and Care of the African Clawed Frog (Xenopus laevis).* Research Animals Department- RSPCA.

Stewart, K., & Bayne, K. (2004). Environmental Enrichment for Laboratory Animals. In J. Reuter, & M. Suckows, *Laboratory Animal Medicine and Management.* IVIS.
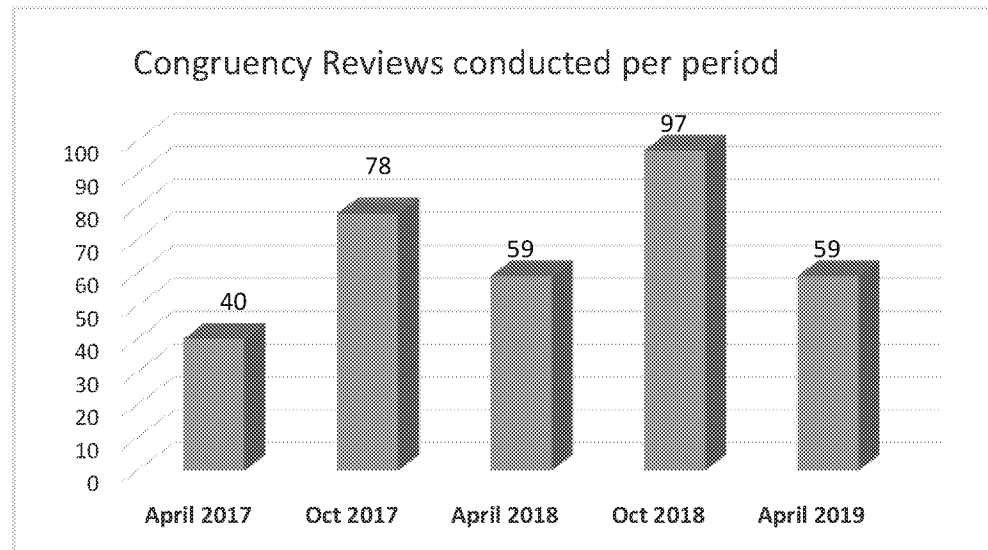
Performance Based Items and Guide Exceptions

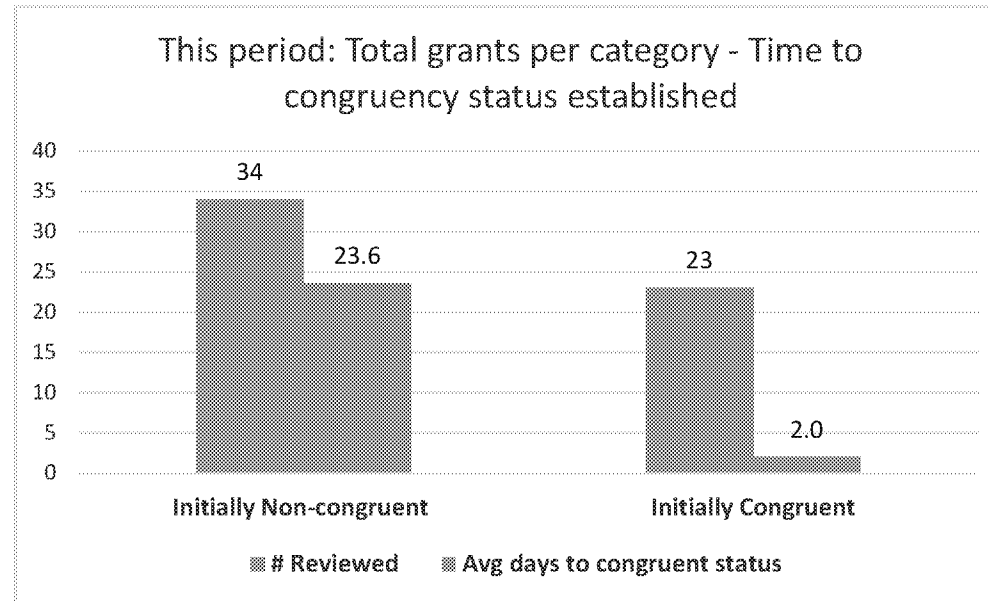# Division of Comparative Medicine (DCM) Facilities and Management

Grant Congruency
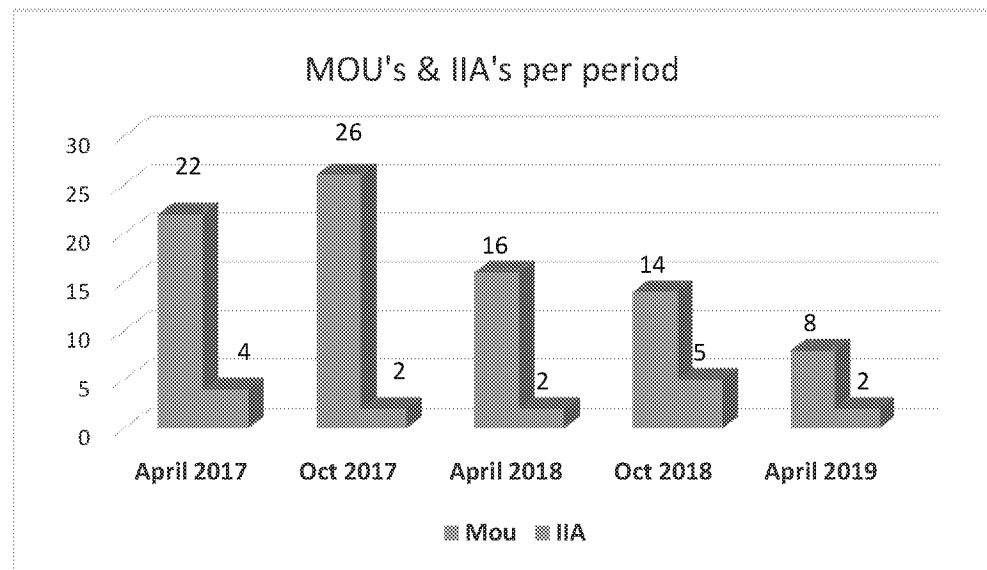
Total Congruency Reviews conducted

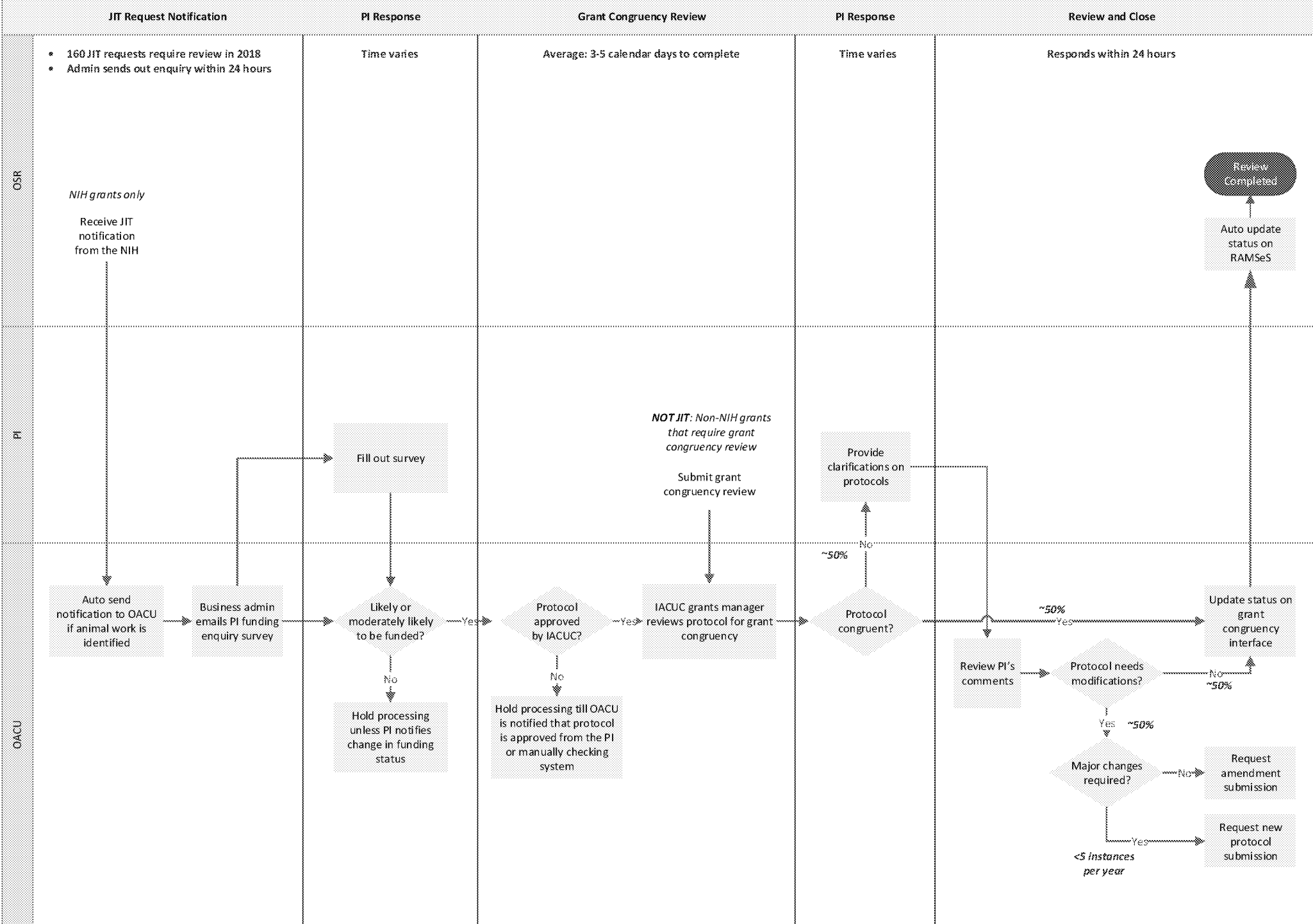| April 2017	Oct 2017	April 2018	Oct 2018	April 2019
40	78	59	97	59

Congruency Reviews conducted per period

			97	
	78			
		59		59
40				

100					
90					
80					
70					
60					
50					
40					
30					
20					
10					
0					
	April 2017	Oct 2017	April 2018	Oct 2018	April 2019

	Initially Non-congruent	Initially Congruent	Total Resolved	Total Reviewed
# Reviewed	34	23	57	59
Avg days to congruent status	23.6	2.0		

This period: Total grants per category - Time to congruency status established

	April 2017	Oct 2017	April 2018	Oct 2018	April 2019
Mou	22	26	16	14	8
IIA	4	2	2	5	2
				Adjusted	

MOU's & IIA's per period

OACU Just In Time (JIT) Review Process
Days displayed are in average and median calendar days to complete each step in FY18

JIT Request Notification	PI Response	Grant Congruency Review	PI Response	Review and Close

OSR

- 160 JIT requests require review in 2018
- Admin sends out enquiry within 24 hours

Time varies | Average: 3-5 calendar days to complete | Time varies | Responds within 24 hours

NIH grants only

Receive JIT notification from the NIH

Review Completed

Auto update status on RAMSeS

PI

NOT JIT: Non-NIH grants that require grant congruency review

Fill out survey

Submit grant congruency review

Provide clarifications on protocols

~50%

No

OACU

Auto send notification to OACU if animal work is identified → Business admin emails PI funding enquiry survey → Likely or moderately likely to be funded? —Yes→ Protocol approved by IACUC? —Yes→ IACUC grants manager reviews protocol for grant congruency → Protocol congruent?

No (from "Likely or moderately likely to be funded?") → Hold processing unless PI notifies change in funding status

No (from "Protocol approved by IACUC?") → Hold processing till OACU is notified that protocol is approved from the PI or manually checking system

~50% → Yes → Update status on grant congruency interface

Review PI's comments → Protocol needs modifications? —No→ (Update status on grant congruency interface)
~50%

Yes ~50%

Major changes required? —No→ Request amendment submission

Yes → Request new protocol submission

<5 instances per year

DCM/IACUC Meeting Summaries

General Updates

OLAW Semi-Annual Program Review Checklist/Assurance Statement/ Outcomes Assessment Report

Semiannual Program Review and Facility Inspection Checklist

About the checklist

The Semiannual Program Review and Facility Inspection Checklist is provided to assist institutions in conducting their semiannual reviews of programs and facilities for the care and use of animals. The Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals (Policy), section IV.B.1.-2., requires the Institutional Animal Care and Use Committee (IACUC) to review the institution's program for humane care and use of animals and inspect all of the institution's animal facilities at least once every 6 months using the *Guide for the Care and Use of Laboratory Animals: Eighth Edition (Guide)* as a basis for evaluation.

How to use the checklist

This checklist is a tool to assist IACUCs in conducting thorough semiannual reviews. IACUCs are not required to use this checklist but are encouraged to amend it as necessary to reflect institutional programs and needs, or to develop their own checklist. If the checklist is modified, periodic review of the checklist is recommended to ensure relevant topics are considered as the animal care and use program changes.

The checklist covers the major topics of the *Guide* and the requirements of the PHS Policy. The checklist does not replace the *Guide*, but should be utilized in conjunction with the *Guide*. The *Guide* provides the standards, recommendations, and descriptions of desired outcomes necessary to evaluate and inspect an animal care and use program. Relevant references for the *Guide* and the PHS Policy are noted. Endnotes are included to reference specific U.S. Department of Agriculture (USDA) regulatory requirements that differ from the PHS Policy. Topics that are new to this version of the checklist or identified as a "must" in the *Guide* are highlighted. A column to identify changes that have occurred in the institution's program for animal care and use (PHS Policy IV.A.1.a.-i.) since the last review is also a new feature.

The checklist consists of the following sections:

  I. Semiannual Program Review Checklist
      - Institutional Policies and Responsibilities
      - Veterinary Care
 II. Semiannual Facility Inspection Checklist
      - Terrestrial Animal Housing and Support Areas
      - Aquatic Animal Housing and Support Areas
      - Cagewash
      - Special Facilities: Aseptic Surgery
      - Special Facilities: Procedure Areas, Non-survival Surgeries, Laboratories, Rodent Surgeries, Imaging, Whole Body Irradiation, Hazardous Agent Containment, Behavioral Studies
III. Semiannual Program Review and Facility Inspection Report
 IV. Endnotes

It is recommended that the Program Review section be completed during an IACUC meeting. Because physical aspects of a program require visual observation to evaluate, it is recommended that the Facility Inspection section be completed during an inspection of the facilities, including satellite facilities.

A table is provided, "Semiannual Program Review and Facility Inspection Report," as a format for the IACUC to organize and track information regarding deficiencies, and plans and schedules for correction. IACUCs may choose to attach the table to the Semiannual Report to the Institutional Official.

Questions or comments?

Suggestions or comments about this checklist should be e-mailed to: olawdpe@mail.nih.gov.

I. Semiannual Program Review Checklist [i]

Institutional Policies and Responsibilities

Date:

1. **Animal Care and Use Program** NEW	A*	M	S	C	NA
• Responsibility for animal well-being is assumed by all members of the program (*Guide*, p 1) [must]					
• IO has authority to allocate needed resources (*Guide*, p 13)					
• Resources necessary to manage program of veterinary care are provided (*Guide*, p 14) [must]					
• Sufficient resources are available to manage the program, including training of personnel in accord with regulations and the *Guide* (*Guide*, pp 11, 15)					
• Program needs are regularly communicated to IO by AV and/or IACUC (*Guide*, p 13)					
• Responsibilities for daily animal care and facility management are assigned to specific individual(s) when a full-time veterinarian is not available on site (*Guide*, p 14) [must]					
• Inter-institutional collaborations are described in formal written agreements (*Guide*, p 15)					
• Written agreements address responsibilities, animal ownership, and IACUC oversight (*Guide*, p 15)					

2. **Disaster Planning and Emergency Preparedness** NEW	A*	M	S	C	NA
• Disaster plans for each facility to include satellite locations are in place (*Guide*, p 35, p 75) [must]					
• Plans include provisions for euthanasia (*Guide*, p 35) [must]					
• Plans include triage plans to meet institutional and investigators' needs (*Guide*, p 35)					
• Plans define actions to prevent animal injury or death due to HVAC or other failures (*Guide*, p 35)					
• Plans describe preservation of critical or irreplaceable animals (*Guide*, p 35)					
• Plans include essential personnel and their training (*Guide*, p 35)					
• Animal facility plans are approved by the institution and incorporated into overall response plan (*Guide*, p 35)					
• Law enforcement and emergency personnel are provided a copy and integration with overall plan is in place (*Guide*, p 35)					

3. **IACUC** NEW	A*	M	S	C	NA
• Meets as necessary to fulfill responsibilities (*Guide*, p 25) [must]					
• IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions (*Guide*, p 26) [must]					
• Continuing IACUC oversight after initial protocol approval is in place (*Guide*, p 33)					
• IACUC evaluates the effectiveness of training programs (*Guide*, p 15)					

4. **IACUC Protocol Review - Special Considerations**	A*	M	S	C	NA
• Humane endpoints are established for studies that involve tumor models, infectious diseases, vaccine challenge, pain modeling, trauma, production of monoclonal antibodies, assessment of toxicologic effects, organ or system failure, and models of cardiovascular shock (*Guide*, p 27)					
• For pilot studies, a system to communicate with the IACUC is in place (*Guide*, p 28)					
• For genetically modified animals, enhanced monitoring and reporting is in place (*Guide*, p 28)					
• Restraint devices are justified in the animal use protocols (*Guide*, p 29) [must]					
• Alternatives to physical restraint are considered (*Guide*, p 29)					
• Period of restraint is the minimum to meet scientific objectives (*Guide*, p 29)					
• Training of animals to adapt to restraint is provided (*Guide*, p 29)					
• Animals that fail to adapt are removed from study (*Guide*, p 29)					
• Appropriate observation intervals of restrained animals are provided (*Guide*, p 29)					
• Veterinary care is provided if lesions or illness result from restraint (*Guide*, p 30) [must]					

- Explanations of purpose and duration of restraint are provided to study personnel (*Guide*, p 30)
- Multiple surgical procedures on a single animal are justified and outcomes evaluated (*Guide*, p 30)
- Major versus minor surgical procedures are evaluated on a case-by-case basis (*Guide*, p 30)
- Multiple survival procedure justifications in non-regulated species conform to regulated species standards (*Guide*, p 30)
- Animals on food/fluid restriction are monitored to ensure nutritional needs are met (*Guide*, p 31)
- Body weights for food/fluid restricted animals are recorded at least weekly (*Guide*, p 31)
- Daily written records are maintained for food/fluid restricted animals (*Guide*, p 31)
- Pharmaceutical grade chemicals are used , when available, for animal-related procedures (*Guide*, p 31)
- Non-pharmaceutical grade chemicals are described, justified, and approved by IACUC (*Guide*, p 31)
- Investigators conducting field studies know zoonotic diseases, safety issues, laws and regulations applicable in study area (*Guide*, p 32)
- Disposition plans are considered for species removed from the wild (*Guide*, p 32)
- Toe-clipping only used when no alternative, performed aseptically and with pain relief (*Guide*, p 75)

5. IACUC Membership and Functions   A* M S C NA

- IACUC is comprised of at least 5 members, appointed by CEO (PHS Policy, IV.A.3.)
- Members include a veterinarian, a scientist, a nonscientist, and a nonaffiliated non-lab animal user (*Guide*, p 24)[ii]
- IACUC authority and resources for oversight and evaluation of institution's program are provided (*Guide*, p 14)
- IACUC conducts semiannual evaluations of institutional animal care and use program (PHS Policy, IV.B.)
- Conducts semiannual inspections of institutional animal facilities (PHS Policy, IV.B.)
- IACUC organizationally reports to the Institutional Official (PHS Policy, IV.A.1.b.)
- Methods for reporting and investigating animal welfare concerns are in place (*Guide*, p 23) [must]
- Reviews and investigates concerns about animal care and use at institution[iii] (PHS Policy, IV.B.)
- Procedures are in place for review, approval, and suspension of animal activities[iv] (PHS Policy, IV.B.)
- Procedures are in place for review and approval of significant changes to approved activities (PHS Policy, IV.B.)
- Policies are in place for special procedures (e.g., genetically modified animals, restraint, multiple survival surgery, food and fluid regulation, field investigations, agricultural animals) (*Guide*, p 27-32)
- Requests for exemptions from major survival surgical procedure restrictions are made to USDA/APHIS[v] (*Guide*, p 30) [must]

6. IACUC Training   NEW   A* M S C NA

- All IACUC members should receive:
  - Formal orientation to institution's program (*Guide*, p 17)
  - Training on legislation, regulations, guidelines, and policies (*Guide*, p 17)
  - Training on how to inspect facilities and labs where animal use or housing occurs (*Guide*, p 17)
  - Training on how to review protocols as well as evaluate the program (*Guide*, p 17)
  - Ongoing training/education (*Guide*, p 17)

7. IACUC Records and Reporting Requirements[vi]   A* M S C NA

- Semiannual report to the IO (PHS Policy, IV.B.)
  - Submitted to IO every 6 months
  - Compiles program review and facility inspection(s) results (includes all program

and facility deficiencies)
- o Includes minority IACUC views
- o Describes IACUC-approved departures from the *Guide* or PHS Policy and the reasons for each departure[vii]
- o Distinguishes significant from minor deficiencies
- o Includes a plan and schedule for correction for each deficiency identified[viii]
- Reports to OLAW (PHS Policy, IV.F.)
  - o Annual report to OLAW documents program changes, dates of the semiannual program reviews and facility inspections and includes any minority views
  - o Promptly advises OLAW of serious/ongoing *Guide* deviations or PHS Policy noncompliance (NOT-OD-05-034)
  - o Institute must promptly advise OLAW of any suspension of an animal activity by the IACUC (NOT-OD-05-034)
- Reports to U.S. Department of Agriculture (USDA) or Federal funding agency[ix]
  - o Annual report to USDA contains required information including all exceptions/exemptions
  - o Reporting mechanism to USDA is in place for IACUC-approved exceptions to the regulations and standards
  - o Reports are filed within 15 days for failures to adhere to timetable for correction of significant deficiencies
  - o Promptly reports suspensions of activities by the IACUC to USDA and any Federal funding agency
- Records (PHS Policy, IV.E.)
  - o IACUC meeting minutes and semiannual reports to the IO are maintained for 3 years
  - o Records of IACUC reviews of animal activities include all required information[x]
  - o Records of IACUC reviews are maintained for 3 years after the completion of the study

8. Veterinary Care (See also next section – Veterinary Care)   A* M S C NA

- An arrangement for veterinarian(s) with training or experience in lab animal medicine is in place including backup veterinary care[xi]
- Veterinary access to all animals is provided (*Guide*, p 14) [must]
- Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (*Guide*, p 14) [must]
- Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol (*Guide*, p 5) [must]
- Veterinarian provides consultation when interventional control is not possible (*Guide*, p 5) [must]
- If part time /consulting veterinarian, visits meet programmatic needs (*Guide*, p 14)
- Regular communication occurs between veterinarian and IACUC (*Guide*, p 14)
- Veterinarian(s) have experience and training in species used (*Guide*, p 15) [must]
- Veterinarian(s) have experience in facility administration/management (*Guide*, p 15)

9. Personnel Qualifications and Training   A* M S C NA

- All personnel are adequately educated, trained, and/or qualified in basic principles of laboratory animal science. Personnel included: [must]
  - o Veterinary/other professional staff (*Guide*, p 15-16)
  - o IACUC members (*Guide*, p 17)
  - o Animal care personnel (*Guide*, p 16)
  - o Research investigators, instructors, technicians, trainees, and students (*Guide*, pp 16-17)
- Continuing education for program and research staff provided to ensure high quality care and reinforce training (*Guide*, pp 16-17)
- Training is available prior to starting animal activity (*Guide*, p 17)
- Training is documented (*Guide*, p 15)
- Training program content includes: (*Guide*, p 17)
  - o Methods for reporting concerns (*Guide*, p 17)
  - o Humane practices of animal care (e.g., housing, husbandry, handling) [xii]
  - o Humane practices of animal use (e.g., research procedures, use of anesthesia,

pre- and post-operative care, aseptic surgical techniques and euthanasia (*Guide*, p 17)[xiii]				
o Research/testing methods that minimize numbers necessary to obtain valid results (PHS Policy, IV.A.1.g.)				
o Research/testing methods that minimize animal pain or distress (PHS Policy, IV.A.1.g.)				
o Use of hazardous agents, including access to OSHA chemical hazard notices where applicable (*Guide*, p 20)				
o Animal care and use legislation (*Guide*, p 17)				
o IACUC function (*Guide*, p 17)				
o Ethics of animal use and Three R's (*Guide*, p 17)				

10. Occupational Health and Safety of Personnel	A*	M	S	C	NA
• Program is in place and is consistent with federal, state, and local regulations (*Guide*, p 17) [must]					
• Program covers *all* personnel who work in laboratory animal facilities (*Guide*, p 18)					
• Changing, washing, and showering facilities are available as appropriate (*Guide*, p 19)					
• Hazardous facilities are separated from other areas and identified as limited access (*Guide*, p 19)					
• Personnel training is provided based on risk (e.g., zoonoses, hazards, personal hygiene, special precautions, animal allergies) (*Guide*, p 20)					
• Personal hygiene procedures are in place (e.g., work clothing, eating/drinking/smoking policies) (*Guide*, p 20)					
• Procedures for use, storage, and disposal of hazardous biologic, chemical, and physical agents are in place (*Guide*, p 21)					
• Personal Protective Equipment for the work area is appropriate and available (*Guide*, p 21)					
• Program for medical evaluation and preventive medicine for personnel includes:					
o Pre-employment evaluation including health history (*Guide*, p 22)					
o Immunizations as appropriate (e.g., rabies, tetanus) and tests as appropriate (*Guide*, p 22)					
o Zoonosis surveillance as appropriate (e.g., Q-fever, tularemia, Hantavirus, plague) (*Guide*, p 23)					
o Procedures for reporting and treating injuries, including accidents, bites, allergies, etc. (*Guide*, p 23)					
o Promotes early diagnosis of allergies including preexisting conditions (*Guide*, p 22)					
o Considers confidentiality and other legal factors as required by federal, state and local regulations (*Guide*, p 22) [must]					
o If serum samples are collected, the purpose is consistent with federal and state laws (*Guide*, p 22) [must]					
• Waste anesthetic gases are scavenged (*Guide*, p 21)					
• Hearing protection is provided in high noise areas (*Guide*, p 22)					
• Respiratory protection is available when performing airborne particulate work (*Guide*, p 22)					
• Special precautions for personnel who work with nonhuman primates, their tissues or body fluids include:					
o Tuberculosis screening provided for all exposed personnel (*Guide*, p 23)					
o Training and implementation of procedures for bites, scratches, or injuries associated with macaques (*Guide*, p 23)					
o PPE is provided including gloves, arm protection, face masks, face shields, or goggles (*Guide*, p 21)					
o Injuries associated with macaques are carefully evaluated and treatment implemented (*Guide*, p 23)					
• Occupational safety and health of field studies is reviewed by OSH committee or office (*Guide*, p 32)					

11. Personnel Security NEW	A*	M	S	C	NA
• Preventive measures in place include pre-employment screening, and physical and IT security (*Guide*, p 23)					

12.	Investigating & Reporting Animal Welfare Concerns NEW	A*	M	S	C	NA
•	Methods for investigating and reporting animal welfare concerns are established (*Guide*, p 23) [must]					
•	Reported concerns and corrective actions are documented (*Guide*, p 24)					
•	Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (*Guide*, p 24)					
	o Includes multiple contacts (*Guide*, p 24)					
	o Includes anonymity, whistle blower policy, nondiscrimination and reprisal protection (*Guide*, p 24)					

* **A** = acceptable
   M = minor deficiency
   S = significant deficiency (is or may be a threat to animal health or safety)
   C = change in program (PHS Policy IV.A.1.a.-i.) (include in semiannual report to IO and in annual report to OLAW)
   NA = not applicable

NOTES:

Veterinary Care

Date:

1. Clinical Care and Management NEW

	A*	M	S	C	NA
• Veterinary program offers high quality of care and ethical standards (*Guide*, p 105) [must]					
• Veterinarian provides guidance to all personnel to ensure appropriate husbandry, handling, treatment, anesthesia, analgesia, and euthanasia (*Guide*, p 106)					
• Veterinarian provides oversight to surgery and perioperative care (*Guide*, p 106)					
• Veterinary care program is appropriate for program requirements (*Guide*, pp 113-114)					
• Veterinarian(s) is familiar with species and use of animals and has access to medical and experimental treatment records (*Guide*, p 114)					
• Procedures to triage and prioritize incident reports are in place (*Guide*, p 114)					
• Procedures are in place to address:					
○ Problems with experiments to determine course of treatment in consultation with investigator(*Guide*, p 114)					
○ Recurrent or significant health problems with the IACUC and documentation of treatments and outcomes (*Guide*, p 114)					
○ Veterinary review and oversight of medical and animal use records (*Guide*, p 115)					
• Procedures established for timely reporting of animal injury, illness, or disease (*Guide*, p 114) [must]					
• Procedures established for veterinary assessment, treatment, or euthanasia (*Guide*, p 114) [must]					
• Veterinarian is authorized to treat, relieve pain, and/or euthanize (*Guide*, p 114) [must]					

2. Animal Procurement and Transportation/Preventive Medicine

	A*	M	S	C	NA
• Procedures for lawful animal procurement are in place (*Guide*, p 106) [must]					
• Sufficient facilities and expertise are confirmed prior to procurement (*Guide*, p 106)					
• Procurement is linked to IACUC review and approval (*Guide*, p 106)					
• Random source dogs and cats are inspected for identification (*Guide*, p 106)					
• Population status of wildlife species is considered prior to procurement (*Guide*, p 106)					
• Appropriate records are maintained on animal acquisition (*Guide*, p 106)					
• Animal vendors are evaluated to meet program needs and quality (*Guide*, p 106)					
• Breeding colonies are based on need and managed to minimize numbers (*Guide*, p 107)					
• Procedures for compliance with animal transportation regulations, including international requirements, are in place (*Guide*, p 107) [must]					
• Transportation is planned to ensure safety, security and minimize risk (*Guide*, p 107)					
• Movement of animals is planned to minimize transit time and deliveries are planned to ensure receiving personnel are available (*Guide*, pp 107- 108)					
• Appropriate loading and unloading facilities are available (*Guide*, p 109)					
• Environment at receiving site is appropriate (*Guide*, p 109)					
• Policies in place on separation by species, source, and health status (*Guide*, pp 109, 111-112)					
• Procedures in place for quarantine to include zoonoses prevention (*Guide*, p 110)					
• Quarantined animals from different shipments are handled separately or physically separated (*Guide*, p 110)					
• Procedures in place for stabilization/acclimation (*Guide*, pp 110-111)					
• Policies in place for isolation of sick animals (*Guide*, p 112)					
• Program is in place for surveillance, diagnosis, treatment and control of disease to include daily observation (*Guide*, p 112)					
• Diagnostic resources are available for preventive health program (*Guide*, p 112)					

3. Surgery

	A*	M	S	C	NA
• Surgical outcomes are assessed and corrective changes instituted (*Guide*, p 115)					
• Researchers have appropriate training to ensure good technique (*Guide*, p 115) [must]					

- Pre-surgical plans are developed and include veterinary input (e.g., location, supplies, anesthetic and analgesic use, peri-operative care, recordkeeping) (*Guide*, p 116)
- Aseptic surgery is conducted in dedicated facilities or spaces, unless exception justified and IACUC approved (*Guide*, p 116)
- Surgical procedures including laparoscopic procedures are categorized as major or minor (*Guide*, pp 117-118)
- For nonsurvival surgery, the site is clipped, gloves are worn and instruments and area are clean (*Guide*, p 118)
- Aseptic technique is followed for survival surgical procedures (*Guide*, pp 118-119)
- Effective procedures for sterilizing instruments and monitoring expiration dates on sterile packs are in place (*Guide*, p 119)
- Procedures for monitoring surgical anesthesia and analgesia are in place (*Guide*, p 119)
- For aquatic species, skin surfaces are kept moist during surgical procedures (*Guide*, p 119)
- Post-operative monitoring and care are provided by trained personnel and documented (e.g., thermoregulation, physiologic function, analgesia, infection, removal of skin closures) (*Guide*, pp 119-120)

4. Pain, Distress, Anesthesia and Analgesia

	A*	M	S	C	NA

- Guidelines for assessment and categorization of pain, distress and animal wellbeing are provided during training (*Guide*, p 121)
- Selection of analgesics and anesthetics is based on professional veterinary judgment (*Guide*, p 121)
- Painful procedures are monitored to ensure appropriate analgesic management (*Guide*, p 122)
- Nonpharmacologic control of pain is considered as an element of postprocedural care (*Guide*, p 122)
- Procedures are in place to assure antinoception before surgery begins (*Guide*, p 122) [must]
- Guidelines for selection and use of analgesics and anesthetics are in place and regularly reviewed and updated (*Guide*, p 122)
- Special precautions for the use of paralytics are in place to ensure anesthesia[xiv] (*Guide*, p 123)

5. Euthanasia

	A*	M	S	C	NA

- Methods are consistent with AVMA Guidelines on Euthanasia unless approved by the IACUC (*Guide*, p 123)
- Standardized methods are developed and approved by the veterinarian and IACUC that avoid distress and consider animal age and species (*Guide*, pp 123-124)
- Training is provided on appropriate methods for each species and considers psychological stress to personnel (*Guide*, p 124)
- Procedures and training are in place to ensure death is confirmed (*Guide*, p 124) [must]

6. Drug Storage and Control ᴺᴱᵂ

	A*	M	S	C	NA

- Program complies with federal regulations for human and veterinary drugs(*Guide*, p 115) [must]
- Drug records and storage procedures are reviewed during facility inspections (*Guide*, p 115)
- Procedures are in place to ensure analgesics and anesthetics are used within expiration date (*Guide*, p 122) [must]
- Anesthetics and analgesics are acquired, stored, and their use and disposal are recorded legally and safely (*Guide*, p 122)

* **A** = acceptable
M = minor deficiency
S = significant deficiency (is or may be a threat to animal health or safety)
C = change in program (PHS Policy IV.A.1.a.-i.) (include in semiannual report to IO and in annual report to OLAW)
NA = not applicable

NOTES:

II. Semiannual Facility Inspection Checklist

Terrestrial Animal Housing and Support Areas

Date:
Location:

	A*	M	S	C	NA
• **Location:**					
o animal areas separate from personnel areas (*Guide*, p 134)					
o separation of species (*Guide*, p 111)					
o separation by disease status (*Guide*, p 111)					
o security and access control (*Guide*, p 151)					
• **Construction:**					
o corridors (*Guide*, p 136)					
o animal room doors (*Guide*, p 137)					
o exterior windows (*Guide*, p 137)					
o floors (*Guide*, p 137)					
o drainage (*Guide*, p 138)					
o walls and ceilings (*Guide*, p 138)					
o heating ventilation and air conditioning (*Guide*, p 139)					
o power and lighting (*Guide*, p 141)					
o noise control (*Guide*, p 142)					
o vibration control (*Guide*, p 142)					
o environmental monitoring (*Guide*, p 143)					
• **Room/Cage:**					
o temperature and humidity (*Guide*, p 43)					
o ventilation and air quality (*Guide*, p 45)					
o illumination (*Guide*, p 47)					
o noise and vibration (*Guide*, p 49)					
• **Primary Enclosure:**					
o space meets physiologic, behavioral [xv], and social[xvi] needs (*Guide*, pp 51, 55-63)					
o secure environment provided (*Guide*, p 51)					
o durable, nontoxic materials in good repair and no risk of injury (*Guide*, p 51)					
o flooring is safe and appropriate for species (*Guide*, p 51)					
o adequate bedding and structures for resting, sleeping, breeding (*Guide*, p 52)					
o objective assessments of housing and management are made (*Guide*, p 52)					
o procedures for routine husbandry are documented (*Guide*, p 52)					
o socially housed animals can escape or hide to avoid aggression (*Guide*, p 55)					
o cage height provides adequate clearance (*Guide*, p 56)					
o animals express natural postures, can turn around, access food and water, and rest away from urine and feces (*Guide*, p 56) [must]					
o rationale[xvii] for *Guide*/USDA space exceptions approved by IACUC and based on performance indices (*Guide*, p 56)					
o dogs and cats allowed to exercise and provided human interaction (*Guide*, p 58)					
o nonhuman primates are socially housed except for scientific, veterinary or behavior reasons (*Guide*, pp 58-59)					
o single housing of nonhuman primates is for shortest duration possible (*Guide*, p 60)					
o opportunities for release into larger enclosures is considered for single caged nonhuman primates (*Guide*, p 60)					
o agricultural animals are housed socially (*Guide*, p 60)					
o food troughs and water devices for agricultural animals allow access for all animals (*Guide*, p 60)					
• **Environmental Enrichment, Behavioral and Social Management:**					
o structures and resources promote species typical behavior (*Guide*, pp 52-54)					
o novelty of enrichment is considered (*Guide*, p 53)					
o species specific plans for housing including enrichment, behavior and activity are developed and reviewed regularly by IACUC, researchers and veterinarian					

(*Guide*, pp 53, 58, 60, 63)
- o animal care personnel receive training to identify abnormal animal behaviors (*Guide*, p 53)
- o stability of pairs or groups is monitored for incompatibility (*Guide*, p 64)
- o single housing is justified for social species (*Guide*, p 64)
- o single housing is limited to the minimum period necessary (*Guide*, p 64)
- o additional enrichment for single housed animals is provided (*Guide*, p 64)
- o single housing is reviewed regularly by IACUC and veterinarian (*Guide*, p 64)
- o habituation to routine procedures is part of enrichment program (*Guide*, p 64)
- **Sheltered or Outdoor Housing:** (e.g., barns, corrals, pastures, islands)
  - o weather protection and opportunity for retreat (*Guide*, p 54) [must]
  - o appropriate size (*Guide*, p 54)
  - o ventilation and sanitation of shelter (no waste/moisture build-up) (*Guide*, p 54)
  - o animal acclimation (*Guide*, p 55)
  - o social compatibility (*Guide*, p 55)
  - o roundup/restraint procedures (*Guide*, p 55)
  - o appropriate security (*Guide*, p 55)
- **Naturalistic Environments:**
  - o animals added /removed with consideration of effect on group (*Guide*, p 55)
  - o adequate food, fresh water, and shelter ensured (*Guide*, p 55)
- **Food:**
  - o feeding schedule and procedures including caloric intake management (*Guide*, pp 65-67)
  - o contamination prevention (*Guide*, p 65)
  - o vendor quality control (*Guide*, p 66)
  - o storage in sealed containers (*Guide*, p 66)
  - o expiration date labeling (*Guide*, p 66)
  - o vermin control (*Guide*, p 66)
  - o rotation of stocks (*Guide*, p 66)
- **Water:**
  - o ad libitum unless justified (*Guide*, pp 67-68)
  - o QC procedures (*Guide*, pp 67-68)
- **Bedding and Nesting Materials:**
  - o species appropriate (*Guide*, pp 68-69)
  - o keeps animals dry (*Guide*, pp 68-69)
  - o QC procedures (*Guide*, pp 68-69)
  - o minimizes scientific variables (*Guide*, pp 68-69)
- **Sanitation:**
  - o frequency of bedding/substrate change (*Guide*, p 70)
  - o cleaning and disinfection of microenvironment (*Guide*, pp 70-71)
  - o cleaning and disinfection of macroenvironment (*Guide*, p 72)
  - o assessing effectiveness (*Guide*, p 73)
- **Waste Disposal:**
  - o procedures for collection (*Guide*, pp 73-74)
  - o procedures for storage and disposal (*Guide*, pp 73-74)
  - o hazardous wastes are rendered safe before removal from facility (*Guide*, pp 73-74) [must]
  - o animal carcasses (*Guide*, pp 73-74)
- **Pest Control:**
  - o regularly scheduled (*Guide*, p 74)
  - o documented program including control of rodent pests and insecticide use (*Guide*, p 74)
- **Emergency, Weekend, and Holiday Animal Care:**
  - o care provided by qualified personnel every day (*Guide*, p 74)
  - o provision for accessible contact information (*Guide*, p 74)
  - o monitoring of backup systems (*Guide*, p 143)
  - o veterinary care available after hours, weekends, and holidays (*Guide*, pp 74, 114) [must]
  - o a disaster plan that takes into account both personnel and animals (*Guide*, p 75)

- **Identification:**
  - cage/rack cards contain required information (*Guide*, p 75)
  - genotype information included and standardized nomenclature used when applicable (*Guide*, p 75)
- **Recordkeeping:**
  - clinical records accessible and contain appropriate information (*Guide*, pp 75-76)
  - records are provided when animals are transferred between institutions (*Guide*, p 75)
- **Breeding Genetics and Nomenclature:**
  - appropriate genetic records, management and monitoring procedures (*Guide*, p 76)
  - phenotypes that affect wellbeing are reported to IACUC and effectively managed (*Guide*, p 77)
- **Storage:**
  - adequate space for equipment, supplies, food, bedding and refuse (*Guide*, p 141)
  - bedding in vermin-free area and protected from contamination(*Guide*, p 141)
  - food in vermin-free, temperature and humidity controlled area and protected from contamination (*Guide*, p 141)
  - refuse storage is separate (*Guide*, p 141)
  - carcass and animal tissue storage is separate, refrigerated below 7ºC and cleanable (*Guide*, p 141)
- **Personnel:**
  - adequate space for locker rooms, administration and training (*Guide*, p 135)

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NA = not applicable

NOTES:

Aquatic Animal Housing and Support Areas NEW

Date:
Location:

	A*	M	S	C	NA
• **Location:**					
o animal areas separate from personnel areas (*Guide*, p 134)					
o separation of species (*Guide*, p 111)					
o separation by disease status (*Guide*, p 111)					
o security and access control (*Guide*, p 151)					
• **Construction:**					
o corridors (*Guide*, p 136)					
o animal room doors (*Guide*, pp 137, 150)					
o exterior windows (*Guide*, p 137)					
o floors (*Guide*, pp 137, 150)					
o drainage (*Guide*, pp 138, 150)					
o walls and ceilings (*Guide*, pp 138, 150)					
o heating ventilation and air conditioning (*Guide*, pp 139, 150-151)					
o power and lighting (*Guide*, pp 141, 150)					
o noise control (*Guide*, p 142)					
o vibration control (*Guide*, p 142)					
o environmental monitoring (*Guide*, p 143)					
• **Water Quality:**					
o standards for acceptable quality are established (*Guide*, p 78)					
o chlorine, chloramines, chemical, and reactive bioproducts are removed or neutralized prior to use in aquatic systems (*Guide*, pp78, 86) [must]					
• **Life Support System:**					
o water source is based on appropriate controls and research requirements (*Guide*, p 79)					
o biofilter is of sufficient size to process bioload (*Guide*, p 80) [must]					
• **Temperature, Humidity and Ventilation/Illumination/Noise and Vibration:**					
o temperature and humidity (*Guide*, pp 43, 80-81)					
o ventilation and air quality (*Guide*, pp 45, 81)					
o illumination (*Guide*, pp 47, 81)					
o noise and vibration (*Guide*, pp 49, 81)					
• **Primary Enclosure:**					
o allows for normal physiological and behavioral needs (*Guide*, p 82)					
o allows social interaction for social species (*Guide*, p 82)					
o provides a balanced, stable environment (*Guide*, p 82)					
o provides appropriate water quality and monitoring (*Guide*, p 82)					
o allows access to food and waste removal (*Guide*, p 82)					
o restricts escape and entrapment (*Guide*, p 82)					
o allows undisturbed observation (*Guide*, p 82)					
o constructed of nontoxic materials (*Guide*, p 82)					
o prevents electrical hazards (*Guide*, p 82)					
o space needs of species are evaluated by IACUC during program evaluations and facility inspections (*Guide*, p 83)					
• **Environmental Enrichment, Social Housing, Behavioral and Social Management:**					
o enrichment elicits appropriate behaviors and is safe (*Guide*, p 83)					
o semi-aquatic reptiles are provided terrestrial areas (*Guide*, p 83)					
o handling is kept to a minimum and appropriate techniques are in place at facility or protocol level (*Guide*, p 84)					
o nets are cleaned, disinfected and managed to avoid contamination of systems (*Guide*, p 84)					
• **Food:**					
o storage to prevent contamination, preserve nutrients and prevent pests (*Guide*, p					

	A	M	S	C	NA
84)					
○ delivery ensures access to all , minimizing aggression and nutrient loss (*Guide*, p 84)					
○ storage times are based on manufacturer recommendations or accepted practice (*Guide*, p 84)					
○ a nutritionally complete diet is provided (*Guide*, p 84)					
● Substrate:					
○ amount, type and presentation of substrate is appropriate for the system and the species (*Guide*, p 85)					
● Sanitation, Cleaning and Disinfection					
○ frequency of tank/cage cleaning and disinfection is determined by water quality, permits adequate viewing and health monitoring (*Guide*, p 86)					
○ cleaning and disinfection of macroenvironment (*Guide*, p 86)					
● Waste Disposal:					
○ procedures for collection (*Guide*, pp 73-74)					
○ hazardous wastes are rendered safe before removal from facility (*Guide*, pp 73-74) [must]					
○ animal carcasses (*Guide*, pp 73-74)					
● Pest Control:					
○ regularly scheduled (*Guide*, p 74)					
○ documented program including control of pests and insecticide use (*Guide*, p 74)					
● Emergency, Weekend, and Holiday Animal Care:					
○ care provided by qualified personnel every day (*Guide*, pp 74, 87)					
○ provision for accessible contact information (*Guide*, pp 74, 87)					
○ emergency response plans in place to address major system failures (*Guide*, 87)					
○ veterinary care available after hours, weekends, and holidays (*Guide*, pp 74, 114) [must]					
● Identification:					
○ cage/tank cards contain required information (*Guide*, pp 75, 87)					
○ genotype information included and standardized nomenclature used when applicable (*Guide*, pp 75, 87)					
● Recordkeeping:					
○ water quality parameters and frequency of testing recorded (*Guide*, p 88)					
○ records kept on feeding, nonexpired food supplies, live cultures (*Guide*, p 88)					
● Storage:					
○ adequate space for equipment, supplies, food, substrate and refuse (*Guide*, p 141)					
○ substrate protected from contamination (*Guide*, p 141)					
○ food in vermin-free, temperature and humidity controlled area and protected from contamination (*Guide*, p 141)					
○ refuse storage is separate (*Guide*, p 141)					
○ carcass and animal tissue storage is separate, refrigerated below 7°C and cleanable (*Guide*, p 141)					
● Personnel:					
○ adequate space for locker rooms, administration and training (*Guide*, p 135)					

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NA = not applicable

NOTES:

Cagewash

Date:
Location:

	A*	M	S	C	NA
• **Construction and Operation:**					
o dedicated central area for sanitizing cages and equipment is provided (*Guide*, p 143)					
o cage-washing equipment meets need (*Guide*, p 143)					
o doors, windows, floors, drainage, walls, ceilings (*Guide*, pp 136-138)					
o convenient to animal areas/waste disposal (*Guide*, p 143)					
o ease of access (including door size) facilitates use (*Guide*, p 143)					
o sufficient space for staging and maneuvering (*Guide*, p 143)					
o safety precautions/clothing/equipment used for waste disposal/prewash/acid wash ((*Guide*, p 143)					
o traffic flow clean to dirty with no contamination of clean equipment by dirty equipment and appropriate air pressurization (*Guide*, p 143)					
o insulation and/or sound attenuation present as needed (*Guide*, p 143)					
o utilities are appropriate (*Guide*, p 143)					
o ventilation meets heat and humidity load (*Guide*, p 143)					
o safety features (e.g., SOPs, warning signs, eyewash stations) are in use (*Guide*, p 143)					
o functioning safety devices to prevent entrapment in washer/sterilizers (*Guide*, p 143)					
o cage wash temperatures are monitored and records are available (*Guide*, p 73)					
o appropriate clean cage storage (*Guide*, p 141)					

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  NA = not applicable

NOTES:

Special Facilities: Aseptic Surgery

Date:
Location:

	A*	M	S	C	NA
• **General Considerations:**					
o location minimizes traffic/contamination (*Guide*, p 144)					
o functional components (surgical support, animal preparation, surgeon scrub, operating room, postoperative recovery) are designed and separated (physically or otherwise) (*Guide*, p 144)					
o appropriate drug storage, control, expiration date monitoring (*Guide*, pp 115, 122)					
o safe sharps disposal system (*Guide*, p 74)					
o adequate records of anesthesia and perioperative care (*Guide*, p 122)					
o aseptic procedures in use for all survival surgery (*Guide*, pp 118-119)					
• **Operating Room:**					
o effective contamination control procedures (*Guide*, p 144)					
o effective cleaning procedures/dedicated tools (*Guide*, p 145)					
o interior surfaces smooth and impervious to moisture (*Guide*, p 145)					
o HVAC system meets *Guide* requirements (*Guide*, p 145)					
o lighting safe and appropriate (*Guide*, p 145)					
o outlets safe and appropriate (*Guide*, p 145)					
o scavenging of anesthetic gases implemented (*Guide*, p 145)					
• **Surgical Support:**					
o facility for washing, sterilizing, storing instruments and supplies (*Guide*, p 145)					
o autoclave monitoring procedures are implemented (*Guide*, pp 119, 145)					
o storage of autoclaved materials maintains sterility (*Guide*, p 145)					
o cold sterilization procedures are appropriate (*Guide*, p 119)					
• **Animal Preparation:** contains large sink to facilitate cleaning of animal and operative site (*Guide*, p 145)					
• **Surgeon Scrub:** outside operating room, non-hand-operated sink (*Guide*, p 145)					
• **Postoperative Recovery:** allows adequate observation, easily cleaned, supports physiologic functions, minimizes risk of injury (*Guide*, p 145)					
• **Dressing Area:** place for personnel to change (*Guide*, p 145)					

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NA = not applicable

NOTES:

Special Facilities: Procedure Areas, Non-survival Surgeries, Laboratories, Rodent Surgeries, Imaging, Whole Body Irradiation, Hazardous Agent Containment, Behavioral Studies

Date:
Location:

	A*	M	S	C	NA
• **General Considerations:**					
○ labs used to house animals only when scientifically required and limited to minimum period necessary (*Guide*, p 134)					
○ drug storage, control, and expiration dates (*Guide*, pp 115, 122)					
○ sharps disposal (*Guide*, p 74)					
○ anesthetic monitoring (*Guide*, p 120)					
○ scavenging of anesthetic gases (*Guide*, p 21)					
○ safety features (e.g., SOPs, safety signs, eyewash stations, secure gas cylinders) are in place (*Guide*, p 19)					
○ carcass disposal (*Guide*, pp 73-74)					
• **Additional Concerns for Survival Surgery:** (rodent and minor procedures only)					
○ rodent survival surgery clean and uncluttered, not used for anything else during surgery (*Guide*, p 144)					
○ records of peri-operative care (*Guide*, p 120)					
○ aseptic procedures (*Guide*, pp 118-119)					
○ autoclave monitoring procedures (*Guide*, pp 119, 145)					
○ storage of autoclaved materials (*Guide*, p 145)					
○ cold sterilization procedures are appropriate (*Guide*, p 119)					
• **Imaging/Whole Body Irradiation:** NEW					
○ location of resource limits contamination risk (*Guide*, p 147)					
○ appropriate transportation methods are in place (*Guide*, p 147)					
○ gas anesthesia provision, scavenging and monitoring are appropriate (*Guide*, p 147)					
○ appropriate sensors and ventilation are provided for cryogen gases (*Guide*, p 147) [must]					
○ imaging console is located away from radiation source (*Guide*, p 147)					
• **Hazardous Agent Containment:** NEW					
○ facility adheres to APHIS, USDA and CDC Select Agent Regulations and other federal, state and local regulations including security measures (*Guide*, p 148) [must]					
• **Behavioral Studies:** NEW					
○ facility minimizes airborne transmission of noise and ground-borne transmission of vibration (*Guide*, p 149)					
○ floor coverings reduce sound transmission (*Guide*, p 149)					
○ testing equipment allows for surface disinfection (*Guide*, p 150)					
○ components that cannot be cleaned are not in ready contact with animals and kept covered when not in use (*Guide*, p 150)					
○ housing areas are contiguous with testing areas when appropriate (*Guide*, p 150)					

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NA = not applicable

NOTES:

III. Semiannual Program Review and Facility Inspection Report

Date:
Members in Attendance:

Deficiency Category*	√	Location	Deficiency and Plan for Correction	Responsible Party	Correction Schedule and Interim Status	Date Complete

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    C = change in program (PHS Policy IV.A.1.a.-i.) (include in semiannual report to IO and in annual report to OLAW)
    NA = not applicable
√   Check if repeat deficiency

IV.   Endnotes

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[i] The PHS Policy requires that Assured institutions comply with the regulations (9 CFR, Subchapter A) issued by the U.S. Department of Agriculture (USDA) under the Animal Welfare Act, as applicable. The endnotes below are specific USDA regulatory requirements that differ from or are in addition to the PHS Policy. This list is not intended to be all inclusive. For additional information please refer to 9 CFR Subchapter A - Animal Welfare.

[ii] Part 2 Subpart C - Research Facilities
- 2.31(b)(2) - "The Committee shall be composed of a Chairman and at least two additional members;... at least one shall not be affiliated in any way with the facility...such   person will provide representation for general community interests in the proper care and treatment of animals." [PHS policy requires 5 members]

[iii] 2.32(c)(4) - "...No facility employee, Committee member, or laboratory personnel shall be discriminated against or be subject to any reprisal for reporting violations of any regulation or standards under the Act." [USDA requirement additional to PHS Policy]

[iv] 2.31(d)(5) - "...shall conduct continuing reviews of activities...not less than annually." [PHS Policy requires a complete new review every 3 years utilizing all the criteria for initial review]

[v] 2.31(d)(1)(x) - "...no animal will be used in more than one major operative procedure from which   it is allowed to recover unless...(it is) justified for scientific reasons...(or is) required as routine veterinary procedure...or other special circumstances as determined by the Administrator on an individual basis." [this last point is an additional USDA justification for multiple survival surgeries]

[vi] 2.36 - "...each   reporting facility shall submit an annual report to the APHIS, AC sector supervisor for the State where the facility is located on or before December 1 of each   calendar year." [The USDA annual report has a list of requirements which   differ from PHS annual report]

[vii] 2.36(b)(3) - "...exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the IACUC. A summary of all such   exceptions must be attached to the facility's annual report." [Refers to USDA annual report]

[viii] 2.31(c)(3) - "...Any failure to adhere to the plan and schedule that results in a significant deficiency remaining uncorrected shall be reported in writing within 15 business days by the IACUC, through the institutional official, to APHIS and any Federal agency funding that activity." [PHS Policy requires prompt reporting to OPRR of serious or continuing noncompliance with the PHS Policy or serious deviations from the provisions of the *Guide*]

[ix] 2.36 - "...each   reporting facility shall submit an annual report to the APHIS, AC sector supervisor for the State where the facility is located on or before December 1 of each   calendar year." [The USDA annual report has a list of requirements which   differ from PHS annual report]

[x] In addition to PHS requirements for IACUC review/application for funding, USDA regulations require:
   2.31(d)(1)(ii) - "The principal investigator (PI) consider alternatives to procedures that cause more than momentary or slight pain or distress to the animals, and has provided a written narrative description of the methods and sources...used to determine that alternatives were not available."

   2.31(d)(1)(iii) - "The PI has provided written assurance that the activities do not unnecessarily duplicate previous experiments."

   2.31(d)(1)(iv) - "Procedures that may cause more than momentary or slight pain or distress to the animals will:
   - involve in their planning, consultation with the attending veterinarian or his or her designee; [PHS Policy does not specify veterinary consultation]
   - not include paralytics without the use of anesthesia;"

2.31(d)(1)(x) - "No animal will be used in more than one major operative procedure from which it is allowed to recover, unless justified for scientific reasons by the principal investigator, in writing..."

[xi] 2.33(a)(1) - "In the case of a part-time attending veterinarian or consultant arrangements, the formal arrangements shall include a written program of veterinary care and regularly scheduled visits to the research facility." [USDA requirement additional]

[xii] 2.32(c) - "Humane methods of animal maintenance and experimentation, including the basic needs of each species, proper handling and care for the various species of animals used by the facility, proper pre-procedural and post-procedural care of animals, and aseptic surgical methods and procedures."

[xiii] 2.32(c) - additional specifications include:
- "proper use of anesthetics, analgesics, and tranquilizers for any species of animals used by the facility"
- "methods whereby deficiencies in animal care and treatment are reported, including deficiencies in animal care and treatment reported by any employee of the facility..."
- "utilization of services (e.g., National Agricultural Library, National Library of Medicine) to provide information on appropriate animal care and use, alternatives to the use of live animals in research , that could prevent unintended and unnecessary duplication of research involving animals, and regarding the intent and requirements of the Act." [USDA training specifications are more detailed than PHS Policy].

[xiv] 2.31(d)(iv)(C) - "Procedures that may cause more than momentary or slight pain or distress to the animals will...not include the use of paralytics without anesthesia."

[xv] Part 3 Subpart A 3.8 - "...research facilities must develop, document, and follow an appropriate plan to provide dogs with the opportunity for exercise. In addition the plan must be approved by the attending veterinarian. The plan must provide written standard procedures..."

[xvi] Part 3 Subpart D 3.81 - "...research facilities must develop, document, and follow an appropriate plan for environment enhancement adequate to promote the psychological well-being of nonhuman primates."

[xvii] Part 3 Subpart A 3.6(c)(1) - "Each dog housed in a primary enclosure must be provided with a minimum amount of floor space, calculated as follows:
(length of dog in inches + 6)^2 /144 = required floor space in square feet)."

- Part 3 Subpart D 3.80 (b) - "Primary enclosures [for nonhuman primates] must meet the minimum space requirements provided in this subpart."

- In situations where the USDA regulations and the *Guide* differ with respect to space requirements, the larger of the two must be followed.