[University of North Carolina at Chapel Hill]

IACUC Semi-Annual Program Review Subcommittee Meeting October 23, 2019

IACUC Semi-Annual Program Review and

Animal Facility Inspection Report

Semi-Annual Program Review

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 - ii. IACUC Training Reports
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 - iv. Reports to the United States Department of Agriculture (USDA)
 - v. Occupational Health and Safety of Personnel
 - vi. Investigating and Reporting Animal Welfare Concerns
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- IV. Policies, Guidelines and SOP's
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- X. OLAW Semi-annual Program Review Checklist/Assurance Statement/Outcomes Assessment
 - a. OLAW Program Review Checklist
 - b. Assurance Statement
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- XI. Other/Recommendations for IACUC Operational Changes

Memorandum to:	Dr. Terry Magnuson					
From:	Institutional Animal Care and Use Committee (IACUC)					
Subject:	Semiannual Report of the Program Review and Facility Inspection					
Date:	December 9, 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 (<u>Policy</u>), Section <u>IV.B.1.-3.</u>, the *Guide for the Care and Use of Laboratory Animals* (<u>*Guide*</u>), and the Animal Welfare Act (<u>AWA</u>) 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 <u>IV.A.1.a.-i.</u>): [optional]

October 23, 2019 Semiannual Program Review and Inspection Report Subcommittee Meeting Summary: The program review details are found in the October 23, 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 November 1, 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:

- Groundbreaking for the is currently scheduled for the end of 2020. The project is over budget, but work is being done to correct this. The second phase, design and development, will start soon.
- The renovations in are complete and 4,000 cages have been relocated to the facility. renovations will be done at the end of November. opens at the beginning of December and the renovations should be done at the end of January. The Carolina Wise program was relocated to another room in and the former PI is expanding into the old space. A study will be done to evaluate the possibility of a vivarium and a plan is being developed to improve air quality. A backup generator is available to keep the pumps and filters going in the event of a power outage. A backup generator at will be added in the next 6 months. The received a backup

generator last year. The renovations there should be done in November. will be closing when DCM moves out.

• The University Animal Facility Disaster plan, maintained by the Division of Comparative Medicine (DCM) has been updated to address recent hurricanes, winter storms and OWASA water outages. DCM purchased a trailer to tow a 275-gallon tank to bring well water to campus sites when needed and is purchasing a third 600-gallon storage tank to allow the program to go 3 days without OWASA water in case of supply disruption. The Attending Veterinarian (AV) indicated that Principal Investigators (PIs) with satellites have assigned mandatory employees (not students) to care for animals during closures and most PIs have listed themselves.

Office of Animal Care and Use (OACU) Updates:

• Since April 2019, the OACU has had 4 employees leave

. The loss of 4 employees in a 10person office within 7 months has been very difficult. These are specialized positions that require training that can take up to a year. Salaries in the OACU may not be comparable to other units or other institutions with all but 2 of the 8 SHRA positions below market value, one by as much as \$8,700. It was noted that salaries should be reevaluated in order to improve retention and to minimize risk.

- The OACU Compliance team conducted 129 semiannual inspections (DCM facility, PI laboratory, satellite facility, procedural observation, and informational sessions) during the past 6 months and only 3 deficiencies were detected.
- OACU has overhauled the entire IACUC website, a project started in 2018. Old, irrelevant documents were identified and deleted; the FAQs were updated and reorganized; and IACUC Standards were updated in PolicyStat and a new link provided.
- All OACU letter and comment templates have been updated to ensure these links are correct across the board.
- OACU has developed a printable checklist which will assist new faculty as they transition to UNC and the UNC animal care and use program.
- OACU performed 70 congruency reviews during the last 6 months. 44 were congruent at initial review versus 26 that were not. This represents 63% congruent at initial review compared to 58% in April and 52% in 2018.
- In 2013 the IACUC determined that any collaborations involving animal work conducted at foreign institutions would require the foreign institution to be AAALAC accredited. AAALAC International accreditation represents an international animal care standard in the absence of other comparisons. However, during the past 6 months, 3 UNC PIs sought collaborations with non-AAALAC International accredited foreign institutions. As a result of the 3 requests, the OACU explored different documentation that could be considered an acceptable substitute for AAALAC accreditation. In the case of the Canadian institution, it was determined that the Canadian Council on Animal Care (CCAC) accreditation is accepted by the NIH and could serve as a standard for Canadian institutions. The other 2 Australian institutions submitted a variety of regulatory documentation, standards and inspection reports in lieu of AAALAC accreditation. The processes taken to approve these foreign collaborations will serve as guidance for possible future requests.

• The AAALAC Program Description is being updated and is due for submission to AAALAC on April 1st, 2020. The draft will be forwarded to the Institutional Official and Research Compliance Officer for input and edits at the beginning of February 2020. The site visit will likely take place June or July 2020. Key leadership should send the dates of any planned unavailability to the OACU Director as AAALAC may take this into consideration when selecting the dates of the site visit.

IACUC Updates:

- The IACUC and OACU have developed a process for serving as the IACUC of record for VA-funded collaborations in which the VA facility does not have an IACUC. The process is now in place for any future such VA collaborations.
- The university has received several public records requests from animal activists over the past 6 months. These requests are reviewed and processed by the UNC Public Records office with input from OACU. The Daily Tar Heel (DTH) published an article based on a Freedom of Information Act (FOIA) request made by a DTH student journalist for all UNC reports to OLAW during a several-year period. The OLAW, USDA, and AAALAC have been advised of the article. Although the article was written to make the information seem shocking, the known details had been reported by the UNC IACUC many months previously. Part of the article described a fish tank used for observation in a biology classroom. A student realized there was no protocol in place and reported this to the IACUC. The IACUC investigated and the PI submitted the necessary protocol describing the observational study. The IACUC reported this issue to OLAW even though it was not required as it was not NIH-funded. DCM will send an email to all DCM staff reminding them to contact their supervisor should they be contacted by individuals or the media.
- Of the 3 animal concern reports in the last 6 months, 2 were reportable to OLAW.

Environment Health and Safety (EHS) Updates:

- The EHS Director is retiring effective November 1st. The EHS Assistant Director will become the interim EHS Director and the primary IACUC member. The Associate Biological Safety Officer will be added to the IACUC roster as the EHS alternate.
- The use of radiological hazards continues to decline.
- There are 1,356 researchers working on campus, 85% of which have completed their annual review with 2 requiring additional evaluation at the UEOHC.
- 90% of DCM employees are compliant with their training and medical surveillance and EHS investigated and completed reports on 13 DCM injuries. DCM accounts for about 7% of the total injuries/illnesses/near misses reported to EHS.
- There has only been one serious campus workplace incident resulting in 6 or more workdays lost since 2016.
- In 2018 there were 2 incidents involving animals which were reportable to the NIH/CDC. To date, there has only been one in 2019. Mouse escapes have been tracked for several years, but there have been none since 2016.

Division of Comparative Medicine (DCM) Updates:

- DCM handles approximately 10,000 clinical care cases per year, 8,000 of which are mice. There has been an increase in non-rodent species care with 3 new PIs requesting studies involving pig surgery.
- There have been approximately 1,000 intra-University transports in the last 6 months, 65 imports from other institutions and 140 exports.
- There was one false positive in a sentinel animal this summer, but there have been no disease outbreaks, even with the change in PPE usage. There have been no health issues seen in the few cases of mixed housing of reptiles/amphibians or rodent species in the same room.
- Enrichment programs for all species housed in UNC provide environmental enrichment that exceeds NIH and USDA standards. More staff has been dedicated to socializing animals and increasing positive experiences beyond study contact. Over the last 6 months across both facilities, 88-93% of dogs have been exercised outside of their runs and 67-100% of dogs have been socialized individually. While some degree of socialization and enrichment has always been a part of the program, this activity has been documented regularly since October 2018.
- The training team has been expanded and there will be more opportunities for specialized training and techniques, particularly in non-rodent species.

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 October 23, 2019 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 October 23, 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 October 23, 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 October 23, 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 two IACUC-approved protocols. An IACUC-approved space is used by 2 PIs solely for surgeries with ferrets. Surgery is performed using aseptic technique and the animals' 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 October 23, 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 October 23, 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 November 1, 2019 to discuss the results of the subcommittee meeting. A majority of the IACUC quorum voted unanimously to accept the subcommittee's recommendations.

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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).]

SEMIANNUAL PROGRAM REVIEW SUBCOMMITTEE MEETING AND FACILITY INSPECTION SIGN-IN SHEET DATE: OCTOBER 23, 2019

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MONTHLY IACUC MEETING AND OCTOBER 2019 SEMIANNUAL PROGRAM REVIEW AND FACILITY INSPECTION REPORT SIGN IN SHEET DATE NOVEMBER 1, 2019

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Minutes of the UNC-CH Institutional Animal Care and Use Committee Semiannual Animal Care Program Review Subcommittee Meeting, October 23, 2019

A subcommittee of the Institutional Animal Care and Use Committee (IACUC) met to review the Animal Care and Use Program on October 23, 2019 starting at 8:00 am. The meeting took place in

The individuals attending the meeting were the following:

The Vice 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 Vice 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. NHP updates
 - B. IACUC membership
 - C. ACAP and OACU Administrative updates
 - D. Regulatory Burden updates
 - E. Mouse Breeding/Cage Density issues
 - F. Carolina WISE updates
 - G. Homes for Animal Heroes/Adoption MOU
 - H. Consideration, review, inspection of new non-DCM surgical space for regulated species

reminded the subcommittee of the items discussed at the last Semiannual Program Review meeting. The only comment was that oversight of the Carolina Wise program is now fully under a DCM veterinarian.

- 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

UNC-Chapel Hill IACUC Semiannual Animal Care Program Review Subcommittee Meeting October 23, 2019

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provided an update on the Groundbreaking is currently scheduled for the end of 2020. The project is over budget, but work is being done to correct this. The second phase, design and development, will start soon.

informed the subcommittee that a 4th OACU employee has accepted a position with a higher paying salary. These are specialized positions that require training that can take up to a year. Salaries in the OACU may not be comparable to other units or other institutions. confirmed that there are several positions within the OACU that remain below market value and noted that retention should be improved to minimize perceived risk. advised the subcommittee that in a 10-person office, losing 4 employees in 7 months was extremely difficult.

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*, <u>p.1</u>) [*must*]
 - Resources necessary to manage program of veterinary care are provided (*Guide*, <u>p.14</u>) [*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 specifics of the animal care program are reviewed and discussed at the IACUC meetings. The subcommittee was invited to review the inspection reports.

- 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*, <u>p.35</u>) [*must*]

informed the subcommittee that the disaster plan has been updated to address recent hurricanes, winter storms, and OWASA water outages. DCM purchased a trailer to tow a 275-gallon tank to bring well water to campus sites when needed. A third 600-gallon storage tank is being purchased to allow the program to go 3 days without water from OWASA in case of supply disruption. asked for an update on student access to facilities during adverse weather and similar events. 'informed the subcommittee that the PIs with satellites have assigned a mandatory person to care during closures, and this cannot be a student. Most PIs have listed themselves.

3. IACUC

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

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4. IACUC Protocol Review - Special Considerations

- Restraint devices are justified in the animal use protocols (*Guide*, <u>p</u> 29) [*must*]
- Veterinary care is provided if lesions or illness result from restraint (*Guide*, <u>p.30</u>) [*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/APHISⁱ (*Guide*, <u>p 30</u>) [*must*]
- Semiannual inspections [information is included in the PDF for member review]
 - i. DCM animal facilities and procedure rooms
 - 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

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informed the committee that semiannual facility inspections are reviewed at the IACUC meetings to determine if deficiencies have been categorized appropriately. The subcommittee was invited to review a graph on the inspection trends. More satellites are moving under DCM oversight, but a new one has recently been requested. The IACUC has reviewed the justifications and approved the satellite, but the space has not yet been approved.

6. IACUC Training

• IACUC member monthly training

informed the subcommittee that committee members typically receive training at the monthly IACUC meetings on topics such as foreign collaborations and how to improve protocol review.

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

advised the subcommittee of the process for reporting issues to OLAW. Concerns are identified through self-reports, anonymous reports, and inspections. OLAW is informed verbally when the investigation starts. After the IACUC discusses and votes, written responses are sent to OLAW for concerns deemed reportable.

The subcommittee then discussed the DTH article published this morning. OLAW, the USDA, and AAALAC have been advised of the article. A FOIA request had been made from an individual for all UNC reports to OLAW for several years. Per the OLAW deputy director, the amount of reports submitted to OLAW by UNC is what is to be expected for an institution of our size. Although the article was written to make the information seem shocking, the known details had been reported and the IACUC was unable to report claims that had not been made known to the IACUC. Part of the article described a fish tank used for observation in a biology classroom. A student realized there was no protocol in place and reported this to the IACUC. The IACUC investigated and the investigator submitted the necessary protocol. This was reported to OLAW even though it was not required since it was not NIH-funded. The subcommittee also discussed any future response. University communications is reaching out to the PI.

stated that DCM will be sending an email to all DCM staff and animal users reminding them that if they are contacted by individuals or the media, they should refer them to DCM.

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- 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]
 - 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
 - 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 USDA reporting requirements, including the annual report. There are two long-standing exceptions to AWA regulations: one is to perform survival surgery on ferrets in a PI lab due to equipment restrictions, and the other is to house ferrets in the lab greater than 12 hours. The space has been approved by the IACUC and the USDA.

- 8. Veterinary Care [Details will be discussed in next section –Veterinary Care]
 - Veterinary access to all animals is provided (*Guide*, <u>p 14</u>) [*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*, <u>p.5</u>) [*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

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v. informational sessions and mandatory meetings

informed the subcommittee that training has moved to DCM. leads the rodent training effort. DCM will begin providing the training updates starting with the next Semiannual Program Review meeting. The LAC training will remain under the OACU. invited the subcommittee to review the training statistics of the last 6 months, noting a 49% increase in the Mouse Cage Density Lecture attendance.

10. Occupational Health and Safety of Personnel

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

' informed the committee that. would be resigning as Director of EHS effective November 1st. will become the primary IACUC member, and will be added as the EHS alternate. invited the subcommittee to review the EHS slides. It was pointed out that use of radiological hazards continues to decline. 10% of DCM employees are non-compliant with their training and medical surveillance. EHS investigated and completed reports on 13 DCM injuries. In 2018 there were 2 incidents involving animals reportable to the NIH/CDC. To date, there has only been one in 2019. Mouse escapes have been tracked for several years, but there have been none since 2016. suggested this could probably be removed from the items reported at the Semiannual Program Review in the future. DCM accounts for about 7% of the total injuries/illnesses/near misses reported to EHS. There has only been on serious campus workplace incident resulting in 6 or more workdays lost since 2016. There are 1,356 researchers working on campus, 85% of which have completed their annual review, with 2 who required additional evaluation at the UEOHC. It was noted that percentage comparisons should account for the increased size of DCM. will be serving as interim until is replaced, however there has been no notification of when this may occur.

11. Personnel Security

12. Investigating & Reporting Animal Welfare Concerns

- Methods for investigating and reporting animal welfare concerns are established (*Guide*, <u>p 23</u>) [*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*, <u>p.24</u>)
- Includes multiple contacts (*Guide*, p 24)
- Includes anonymity, whistle blower policy, nondiscrimination and reprisal protection (*Guide*, p.24)

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- 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

invited the subcommittee to review the animal concern statistics and provided an explanation of what OLAW defines as reportable, noting some concerns do not meet their criteria. Over the last 6 months, 2 concerns were deemed reportable. There is a formal process for identifying, investigating, and bringing concerns to the IACUC for review. There are multiple methods of reporting and multiple points of contact listed on the IACUC and ACAP websites. It is required that a fully anonymous method be provided, and we meet this requirement by using Ethicspoint. noted the graph provided will be double checked for accuracy.

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*, <u>p 114</u>) [*must*]
- Veterinarian is authorized to treat, relieve pain, and/or euthanize (*Guide*, p <u>114</u>) [*must*]

informed the IACUC that DCM handles approximately 10,000 clinical care cases per year, 8,000 of which are mice. The biggest shift DCM is seeing is an increase in non-rodent species care. There have been 3 new PI's requesting studies involving pig surgery. The PI who is working with the VA plans to start next week. stated the IACUC had not heard anything about the VA IACUC member. stated they had contacted the VA but not heard back on the final arrangement and will reach out to the PI to determine the current status. will wait to hear from before the studies are allowed to move forward.

- 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 there have been approximately 1,000 intra-University transports in the last 6 months, 65 imports from other institutions, and 140 exports. There was one false positive in a sentinel this summer, but there have been no outbreaks, even with the change in PPE usage. There have been no health issues with the same room mixed housing of reptiles/amphibians or rodent species.

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3. Surgery

- Researchers have appropriate training to ensure good technique (*Guide*, <u>p.115</u>) [*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*, <u>p 124</u>) [*must*]
- 6. Drug Storage and Control
 - Program complies with federal regulations for human and veterinary drugs(*Guide*, <u>p 115</u>) [*must*]
 - Procedures are in place to ensure analgesics and anesthetics are used within expiration date (*Guide*, p 122) [*must*]
- IV. Policy and Standards 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 September 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

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- 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

invited the subcommittee to look over the provided list of IACUC Standards reviewed in the last 6 months. These are all on the new Standard template and have been uploaded to the PolicyStat website.

- B. Reviewed by IACUC semi-annually USDA-regulated species (as of September 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
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 - 10. University Standard for Environmental Enrichment Program for Research Animals
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 - 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
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 - 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

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- 28. DCM Veterinarian Recommended Formularies and Regimens
- 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

invited the subcommittee to look over the provided list of IACUC Standards that concern the use of USDA covered species. To meet the USDA requirement of review every 6 months, they are included as part of the Semiannual Program Review.

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.

informed the subcommittee that enrichment programs for all species housed in UNC-CH facilities continue to provide environmental enrichment that exceeds all NIH and USDA standards. More staff has been dedicated to socializing animals and increasing positive experiences beyond study contact. Over the last 6 months across both facilities, 88-93% of dogs are being exercised outside of their runs and 67-100% of dogs are being socialized individually. While some degree of socialization and enrichment has always been a part of the program, this has been documented regularly since October 2018.

- V. Performance Based Items, Animal Welfare Act regulations and Guide Exceptions Reviewed by the IACUC
 - A. Ongoing performance based items:
 - 1. UNC Mouse Cage Density Standard 15 + years
 - 2. Two- week cage change for individually ventilated small rodent cages

informed the subcommittee that there continues to be 2 ongoing performance-based items. The Mouse Cage Density Standard was recently updated. There is a chance the next version of the Guide may alter cage change guidance.

- B. Animal Welfare Act Regulations and 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 the same housing room separate individually ventilated cages on the same rack (mice/rats, rats/gerbils, guinea pigs/rats) and filter top caging (reptiles/amphibians), fish and amphibians.

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informed the subcommittee that there continue to be exceptions, but no departures. These are handled at the protocol level with the PI providing justification. With multiple species in the same room, there have been no animal health issues. There have been no new exceptions of this type recently, so the subcommittee has not needed to meet.

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

reiterated that the is on schedule to begin construction in late 2020. also informed the subcommittee that the renovations in. are now complete and 4,000 cages have been relocated to the facility. ⁻⁻⁻⁻ renovations will be done at the end of November. ⁻⁻⁻⁻ opens at the beginning of renovations should be done at the end of January. Work is being done in December and the. a labs is closing, and they do not plan to move forward with animals. The Carolina One of the Wise program was relocated to another room in and the former PI is expanding into the old space. A study will be done to evaluate the possibility of a vivarium in ---- and a plan is being developed to improve air quality. A backup generator is available to keep the pumps and filters going in the event of a will be added in the next 6 months. The power outage. A backup generator at received a backup generator last year. The renovations there should be done in November and there is a recruitment effort to bring new PI's into the facility. will be closing when DCM moves out. A study is planned to look at HVAC backup concerns and remedies in the facilities.

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

informed the subcommittee that the training team has been expanded and there will be more opportunities for specialized training and techniques, particularly in non-rodent species.

VII. Grant Congruency

- A. Assessment of grant congruency, subcontracts/collaborations, IIAs
 - 1. Foreign subawards
 - 2. Salisbury VA Medical Center

invited the subcommittee to review the provided slides. There were 70 congruency reviews performed in the last 6 months. Of those, 44 were congruent at initial review versus 26 that were not, meaning 37% were non-congruent at initial review. This is down from 58% in April, and 52% in 2018. Time to bring

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the items congruent is also down to around 15 days. This is likely an indication that PIs are understanding the process better, and are willing to work on the issues upfront, eliminating a lot of back stated they now have the PI start amendments as soon as missing items are identified and and forth. will work directly with them on the unsubmitted document, so it is ready for IACUC review. The number of MOUs have increased and there has been a significant jump in the number of IIAs. There were 3 in the last 6 months that involved foreign institutions with no PHS assurance. *clarified that in 2013 the* IACUC voted to have foreign institutions provide a standard instead. The selected standard was AAALAC. The OACU explored different documentation that could be considered an acceptable substitute and did fined comparable reviews and standards. In the case of the Canadian institution, they were not pleased with the requests for additional documentation. It was later discovered that in unrelated discussions with a Canadian AAALAC member that the Canadian Council on Animal Care can be accepted by the NIH and may even be more rigorous. In the future, this will be considered an acceptable when a PHS Assurance and AAALAC Accreditation are absent. also confirmed they will speak to the PI to move things along concerning the VA collaboration.

VIII. IACUC-DCM Leadership Meeting Summaries

- A. Protocol reviewers see every revised protocol or include comment to permit OACU staff verification
- B. Request for ACAP question to identify sterile room placement
- C. Discussion of foreign collaboration (Queensland, Australia)
- D. VA MOU
- E. Mice and rats housed on IVC rack in different cages
- F.Discussion of serial rodent survival surgeries and maximum number of surgeries using one sterile pack
- G. Solutions to analgesia shortages (bupivacaine, meloxicam) to assist researchers
- H. Adherence to IACUC Standards if specific humane endpoints in standard are not described in protocol
- I. FOIA, animal numbers, field studies
- J. Lock out tag out for cage/rack washers
- K. Anonymity and veterinary protocol reviews

informed the subcommittee that the IACUC/DCM subcommittee continues to meet on the Tuesday prior to the IACUC meetings. Various topics are discussed, and invited to review the list of recent discussions. Key leadership from the IACUC, OACU, and DCM attend, and the discussions save time during IACUC meetings.

X. General Updates

A. AAALAC site visit Summer 2020

informed the subcommittee that the Program Description is being prepared now and is due for submission April 1st. When the draft is completed it will be forwarded to for any input or edits, possibility at the end of January or beginning of February. The site visitors will be assigned shortly after submission and UNC will be notified of the dates. It will likely be in June or July. Key leadership UNC-Chapel Hill IACUC Semiannual Animal Care Program Review Subcommittee Meeting October 23, 2019 Page **12** of **14**



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should send the dates of any planned unavailability to when selecting the dates of the site visit.

as AAALAC may take this into consideration

B. IACUC membership

informed the subcommittee that the IACUC currently has a full roster with the 4 new members being added this month.

C. Regulatory Burden updates

informed the subcommittee that the effort to look for ways to reduce burden is ongoing. There have been no broad new changes. 'noted that moving the to DCM has reduced burden.

D. ACAP and OACU Administrative updates

updated the subcommittee on recent staff changes within the OACU. In ACAP, there were a large number of minor changes to condense multistep administrative processes, enabling the OACU staff to be more responsive. Items updated include the addition of DMR vs. FCR designation at the submission level, various shortcuts to allow rapid movement between and through protocols, and an auto notification flagging the addition of DoD/VA funding sources for additional review. The page for overview of online certifications was modified to include more details and is now color-coded for review at a glance. The process to remove exceptions now allows for additional documentation and data preservation when withdrawn. A major improvement added an auto notification process for Cores so they can recertify arrangements with PI's when updated by amendment. A URL scrubber was installed to identify broken or incomplete links and to run URL's that are longer than can be accommodated by the protocol form to be made shorter automatically. A major issue with ACAP and the ACAP server was corrected that involved the inability for certain symbols to be correctly displayed in the PDF. This took numerous months for IT to investigate and solve. Previously, these 2 items created issues with formatting that had to be manually corrected prior to review, a process that could 20 minutes or more per instance. explained that the IT staff identified the source of an issue with rapid opening of protocols that caused the same data to appear in multiple documents which they now believe has been corrected. *advised the* subcommittee that the OACU is frequently contacted by departments needing IACUC approval pages, but access is limited since the business officers are not on the protocols. A new system was built to allow access to be granted in Backbone by the role managers, allowing departmental representatives to retrieve these documents directly through a link on their pages. In addition, the Protocol Administration pages continue to provide links for PI's and department representatives for the most recently approved item (annual renewal, amendment, etc.) along with the newly added link for the original approval page. It is not possible to provide every approval document, but these are the ones requested most often. PI's and departments can still contact the OACU if additional documentation is needed. Finally, 'advised the subcommittee that the IACUC website has been overhauled. started this project in 2018 and it is within days of completion. Old, irrelevant documents were identified and deleted. The FAQ's were updated and reorganized. Standards that have been updated in PolicyStat now have the new link, and the OACU is in the process of reviewing all letter and comment templates to ensure these links are correct across the board. One of the highlights of this project was the development of a printable checklist for

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PIs new to animal research that works hand-in-hand with the "Getting Started with Animal Research" page.

E. FOIA and Public Records requests

informed the subcommittee that approximately 1 request is received per month. NC has very liberal public record laws and requests from anyone, even individuals who shield their true identity with fraudulent names, are treated as valid. Based on recent requests, there appear to be coordinated nationwide campaigns targeting several institutions right now. The reasons for why we do not currently charge for record requests was discussed by the group.

F. NHP updates

informed the committee that the imaging center is currently responsible for the animals used routinely for non-invasive imaging studies.

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

(Discussed earlier in the meeting.)

XI. Supporting Documentation

- A. OLAW Semiannual Program Review Checklist
- B. Updated (April 2017) OLAW Assurance Statement
- C. OACU Outcomes Assessment Report (2018)

invited the subcommittee to review the supporting documents.

XII. Other

asked the subcommittee if they felt there were any deficiencies with the program, major or minor. The group agreed unanimously and with no comment that no issues were identified.

The meeting concluded at 9:42 am.

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Wednesday, October 23, 2019 – 8:00 am IACUC Semi-annual Program Review Subcommittee Meeting

- I. Issues that were addressed in the previous review
 - A. NHP updates
 - B. IACUC membership
 - C. ACAP and OACU Administrative updates
 - D. Regulatory Burden updates
 - E. Mouse Breeding/Cage Density issues
 - F. Carolina WISE updates
 - G. Homes for Animal Heroes/Adoption MOU
 - H. Consideration, review, inspection of new non-DCM surgical space for regulated species
- 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*, <u>p 1</u>) [*must*]
 - Resources necessary to manage program of veterinary care are provided (*Guide*, <u>p 14</u>) [*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*, <u>p 14</u>) [*must*]
 - 2. Disaster Planning and Emergency Preparedness
 - Disaster plans for each facility to include satellite locations are in place (*Guide*, <u>p 35</u>, <u>p 75</u>) [*must*]
 - Plans include provisions for euthanasia (*Guide*, <u>p 35</u>) [*must*]

3. IACUC

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

- 4. IACUC Protocol Review Special Considerations
 - Restraint devices are justified in the animal use protocols (*Guide*, <u>p 29</u>) [*must*]
 - Veterinary care is provided if lesions or illness result from restraint (*Guide*, <u>p_30</u>) [*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/APHISⁱ (*Guide*, p <u>30</u>) [*must*]
- Semiannual inspections [information is included in the PDF for member review]
 - i. DCM animal facilities and procedure rooms
 - 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 USDAregulated)
 - iii. Satellite Facilities (PI maintained housing areas) quarterly inspections [14]

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- 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]
 - 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*, <u>p 14</u>) [*must*]

- Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (*Guide*, <u>p 14</u>) [*must*]
- Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol (*Guide*, <u>p 5</u>) [*must*]
- Veterinarian provides consultation when interventional control is not possible (*Guide*, <u>p 5</u>) [*must*]
- Veterinarian(s) have experience and training in species used (*Guide*, <u>p 15</u>) [*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*, <u>p</u> <u>22</u>) [*must*]
 - If serum samples are collected, the purpose is consistent with federal and state laws (*Guide*, <u>p 22</u>) [*must*]
- 11. Personnel Security
- 12. Investigating & Reporting Animal Welfare Concerns
 - Methods for investigating and reporting animal welfare concerns are established (*Guide*, <u>p 23</u>) [*must*]
 - Reported concerns and corrective actions are documented (*Guide*, <u>p 24</u>)
 - Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (*Guide*, <u>p 24</u>)
 - Includes multiple contacts (*Guide*, <u>p 24</u>)
 - 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

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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*, <u>p 114</u>) [*must*]
 - Procedures established for veterinary assessment, treatment, or euthanasia (*Guide*, <u>p 114</u>) [*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*, <u>p 107</u>) [*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*, <u>p 122</u>) [*must*]
- 5. Euthanasia
 - Procedures and training are in place to ensure death is confirmed (*Guide*, <u>p 124</u>) [*must*]
- 6. Drug Storage and Control
 - Program complies with federal regulations for human and veterinary drugs(*Guide*, p 115) [*must*]
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- IV. Policy and Standards reviewed by IACUC during past 6 months and update regarding new Policy and Standard format
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 - 6. University Standard for Documentation of Monthly Principal Investigator Check Sheet
 - 7. University Standard for Satellite Facilities
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 - 12. University Standard for Animal Procedural Space Exception
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 - 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 September 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
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- 26. Disaster Plan for UNC Satellite Facilities
- 27. Reporting Animal Welfare Concerns or Animal Protocol Non-Compliance
- 28. DCM Veterinarian Recommended Formularies and Regimens
- 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.
- V. Performance Based Items, Animal Welfare Act regulations and Guide Exceptions Reviewed by the IACUC
 - A. Ongoing performance based items:
 - 1. UNC Mouse Cage Density Standard 15 + years
 - 2. Two- week cage change for individually ventilated small rodent cages
 - B. Animal Welfare Act Regulations and 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 the same housing room separate individually ventilated cages on the same rack (mice/rats, rats/gerbils, guinea pigs/rats) and filter top caging (reptiles/amphibians), fish and amphibians.
- 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
- B. Management structure
 - 1. Training of personnel
 - 2. Staff updates

VII. Grant Congruency

- A. Assessment of grant congruency, subcontracts/collaborations, IIAs
 - 1. Foreign subawards
 - 2. Salisbury VA Medical Center
- VIII. IACUC-DCM Leadership Meeting Summaries
 - A. Protocol reviewers see every revised protocol or include comment to permit OACU staff verification
 - B. Request for ACAP question to identify sterile room placement
 - C. Discussion of foreign collaboration (Queensland, Australia)
 - D. VA MOU
 - E. Mice and rats housed on IVC rack in different cages
 - F. Discussion of serial rodent survival surgeries and maximum number of surgeries using one sterile pack
 - G. Solutions to analgesia shortages (bupivacaine, meloxicam) to assist researchers
 - H. Adherence to IACUC Standards if specific humane endpoints in standard are not described in protocol
 - I. FOIA, animal numbers, field studies
 - J. Lock out tag out for cage/rack washers
 - K. Anonymity and veterinary protocol reviews
- X. General Updates
 - A. AAALAC site visit Summer 2020
 - B. IACUC membership
 - C. Regulatory Burden updates
 - D. ACAP and OACU Administrative updates
 - E. FOIA and Public Records requests
 - F. NHP updates
 - G. Requirements for subcontracts with foreign institutes to carry out animal work
- XI. Supporting Documentation
 - A. OLAW Semiannual Program Review Checklist
 - B. Updated (April 2017) OLAW Assurance Statement
 - C. OACU Outcomes Assessment Report (2018)

XII. Other

###

Overview of Issues Addressed in Previous Review

University Administration Updates

OLAW Semi-Annual Program Review Checklist

Institutional Policies and Responsibilities



THE UNIVERSITY «Ý NORTH CAROLINA »1 CHAPEL MILL Semi-Annual Facility Inspections JULY - OCTOBER 2019

JULY

Thursday, July 11th: 1:30pm-4:00pm Meet in the

at 1:20pm

, USDA veterinary records:

each

- ask for sx records for

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:

2 IACUC MEMBERS:

Wednesday, July 17th: 1:30pm-4:00pm Meet in the Reserve 1 DCM vehicle: Dodge Journey at 1:20pm

Primary inspector: Secondary Inspector: Back-up Inspector:

DCM REPRESENTATIVE:

EHS REPRESENTATIVE: DCM VETERINARIAN: 2 IACUC MEMBERS:

Wednesday, July 31 st : 1	:30pm-4:00pm	Meet in the	at 1:20pm
Primary inspector:			
Secondary Inspector: Back-up Inspector:			
DCM REPRESENTATIVE	:		
EHS REPRESENTATIVE:			
DCM VETERINARIAN:			
2 IACUC MEMBERS:			
***	***	***	***
	AUGUST		
may 1 5 5 5 4 ³ 0 5 5			
Thursday, August 8 th : 1:3	30pm-4:00pm	Meet in the	at 1:20pm
	s) – please arrange fo 🗄 for escort into n	r vehicles to be present ot USDA)	if possible
Primary inspector:			
Secondary Inspector: Back-up Inspector:			
Dack-up inspector.			
DCM REPRESENTATIVE	:	please bring Master Ke	y for lockers
EHS REPRESENTATIVE:			
DCM VETERINARIAN:			
7 IACUC MEMBERS:			
Thursday, August 15 th :	1:30pm-4:00pm	Meet in the	at 1:20pm
Drimary inspector			
LICHMANN (10000000000			

Primary inspector: Secondary Inspector:

Back-up Inspector:		
DCM REPRESENTATIVE:		
EHS REPRESENTATIVE:		
DCM VETERINARIAN:		
4 IACUC MEMBERS:		
Wednesday, August 21 st : 1:30pm – 4:00pm	Meet in the	at 1:20pm
record review		
Primary inspector: Secondary Inspector:		
Back-up Inspector:		
DCM REPRESENTATIVE:		
EHS REPRESENTATIVE:		
DCM VETERINARIAN:		
2 IACUC MEMBERS:		
ZIAGGO MEMBERG.		
	All and the All a	
Thursday, August 29 th : 1:30-4:00pm	Meet in the	at 1:20pm
Enrichment Documentation- setup to meet in	w/ IACUC members – schedule	e w/⊟ Mgr. Last reviewed
3/19, so review all i records for 3/19-8/19		
including water dep. and head cap clear	ning recoras	
Primary inspector: Secondary Inspector:	to schodulo	record review
Back-up Inspector:	to schedule	record review
DCM REPRESENTATIVE:		
EHS REPRESENTATIVE:		
DCM VETERINARIAN:		
1 IACUC MEMBER:		

***	***	***	***
	SEPTEM	BER	
Thursday, September 12 th : 1	:30pm – 4:00pm	Meet in the	at 1:20pm
access to irradiator confirm date/time day before*	*Contact	escort into •not to include irradiator.	USDA; contact EHS for a week before and re-
Primary inspector: Secondary Inspector: Back-up Inspector:			
DCM REPRESENTATIVE:		- please bring Master	Key for lockers
EHS REPRESENTATIVE:			
DCM VETERINARIAN:			
2 IACUC MEMBERS:			
			Journey & Nissan Pathfinder)
<i>Meet in the the inspectors</i>	at 1:20pm;	if you will meet us at .	please contact one of
······································			
Primary inspector: Secondary Inspector: Back-up Inspector:			
DCM REPRESENTATIVE:			
EHS REPRESENTATIVE:			
DCM VETERINARIAN:			
2 IACUC MEMBERS:			

NO INSPECTION CONDUCTED BECAUSE TH	E FACILITY WAS INA	CTIVE	
determine if animals in house anytime in the ask when field collection/surgery scheduled a required, collect records for last 6 month hou	and try to schedule to	schedule inspect coincide. If in-pe	
Primary inspector:			
DCM VETERINARIAN:			
1 IACUC MEMBER:			
Thursday, September 26 th : 1:30pm – 4:00pm	Meet in the	í	at 1:20pm
Schedule inspection of inspection; lab does not need to be present]	behavior spaces if ru	nning experimen	ts during
Primary inspector: Secondary Inspector: Back-up Inspector:			
DCM REPRESENTATIVE:			
EHS REPRESENTATIVE:			
DCM VETERINARIAN:			
2 IACUC MEMBERS:			
***	***	***	
<u>O(</u>	CTOBER		
Wednesday, October 2 nd : 10:00 – 12:30pm	М	eet in the	at 9:50am
 – ask 1. – ask to meet in lab space to review day w/ 2 IACUC members 	to review all USDA co v all records – not in	overed species re during	cords-if applicable). – could be another
2. Contact EHS for access to irradiato	· · · · · · · · · · · · · · · · · · ·		
*Contact 3. Speak to about where Procedure room As of 3/18, is after , and procedu	a week before and ns and irradiato ure rooms after	re-confirm date/tin o <mark>r fall on room or</mark>	
e: there is also an imaging machine in one pro loyees have access.	ocedure room. It is sepa	rate from the irrad	liator and DCM

Primary	inspector:
---------	------------

Secondary Inspector: Back-up Inspector:

DCM REPRESENTATIVE(S): EHS REPRESENTATIVE: DCM VETERINARIAN: 3 IACUC MEMBERS:

Thursday, October 10th: 8:30 – 9:30am – to be scheduled with participate in this inspection) 1.5 hours, anytime in Oct 2019 Primary inspector:

IACUC Members:
Lab Representative:
Lab Representative:
Lab Representative:

- to be scheduled with participate in this inspection) 1.5 hours, anytime in Oct 2019 Primary inspector:

IACUC Members: Lab Representative:

- to be scheduled with to participate in this inspection) <u>NO ANIMALS IN THIS LOCATION</u> 1.5 hours, anytime in Oct 2019 IACUC Members: Lab Representative:

*Need 2 IACUC members if needed if no USDA species present. has had in the space since 5/19 (last inspection). Only one has animals in the space so we need 2 other members.

at 8:25am

(must be cleared to enter to

Met in the

(must be cleared to enter to

(must be cleared to enter

Obtained by Rise for Animals. Uploaded 07/05/2020

Facility Inspection ID	14		
Inspectors			
Inspection Date	09/18/2019	Response Due Date	10/03/2019

Inspection Summary

R	toom Checklist Type	Principal Investigator	Deficiencies
	DCM		2
	DCM		1

Inspection Details

Room	Checklist Type	Principal Investigator	
	DCM		
	1. Documentation		
	facility manager had	Inspectors noticed that a monthly duty was not completed according to the husbandry logs. The conducted the weekly signoff for this month (July 2019), however no notation was made for the plies to the logs for both rooms	Minor Deficiency Resolve 10/07/201
		oticed that documentation for daily sweeping of the floors was not provided on two occasions on the or September 2019 for the treatment room.	No Deficiency
	7. Physical Plant		
	temperature values, o was notified (*). Wee	Ity Values Inspectors noted that husbandry logs for these spaces included several humidity and over multiple months, outside of the acceptable range, recorded without notation that the supervisor kly supervisor initials were present, however there was no indication that the issue with midity was addressed. This applied to both (months of June through September 2019) & the 2019) in the supervisor	Minor Deficiency Resolve 10/07/201
	8 USDA Species		
	The technician for the	s noticed some kennels in need of general maintenance and repair located in at area noted that they are aware of the issue. They also noted that a work order has been submitted for repairs and that the repairs have already been scheduled.	No Deficiency
	DCM		
	1. Documentation		
		Inspectors noticed that a monthly duty was not completed according to the husbandry logs for sility manager had conducted the weekly signoff for this month, however no notation was made for	Minor Deficiency Resolve 10/07/201
		bserved multiple daily, weekly, monthly and quarterly entries missing for duties to be completed room logs for the months of July and August 2019 in ' (procedure room in).	No Deficiency

Room Inspected: Response Due: 10/3/2019 Issue(s) Resolved: 10/7/2019 **Resolution occurred after the due date for the reason listed below.** Reason: Delayed response from the PI.

Room Inspected: Response Due: 10/3/2019 Issue(s) Resolved: 10/7/2019 **Resolution occurred after the due date for the reason listed below.** Reason: Delayed response from the PI.

Facility Inspection I	D 1	
Inspectors		
Inspection Date	07/11/2019	Response Due Date 07/31/2019

Inspection Summary

Room	Checklist Type	Principal Investigator	Deficiencies
	Other		1
	PI		24
	PI		0
	PI		0
	DCM		0
	DCM		1
	DCM		1 ^{°°}

Inspection Details

Checklist Type	Principal Investigator	
Other 8. USDA Species		
of vital parameter me	The surgical records indicate the start and stop times and toe pinch, however there were no records onitoring for the lengthy procedure (1.5 hours). The protocol indicates that vital parameters are a should be documentation that monitoring is being done during the procedure.	Minor Deficiency Resolved 08/12/2019
3. Drugs/Biologics		
Labeling Inspector medication box. The chemical on the labe	ors found a bottle containing white liquid without a chemical name or expiration date in the EHS Laboratory Safety Manual (3-6) states that you must "Clearly spell out the name of the el any time you transfer substances from original containers to secondary containers, or when new substances, if the substances are not for the immediate use of the handler or preparer."	Minor Deficiency Resolved 08/12/2019
PI		
Animal Identificati		
	A cage was observed without the required cage card information. If a DCM RFID card is not must be identified with the PI's name, the current protocol number, and should have the date in was requested.	No Deficiency
room. Please be awa ensure the unused of	of new and un-used DCM RFID cage cards were observed in the PI's open metal box within the are that RFID cards which are not being used must be stored in a closed metal container/box to cards are not accidentally scanned causing the PI to be charged unnecessarily.	No Deficiency
PI		
	al Health and Safety of Personnel)	
	al Hazard Documentation The Chemical Hazard Sheet on rack contains an expired protocol the time of the inspection. Please remove this sheet or update it with the current protocol number(s)	No Deficiency
Emergency Contac contain more accura	0000	No Deficiency
DCM		
1. Documentation		
values out of range i	Inspectors noted that a husbandry log for this space included several temperature and humidity recorded without notation that the supervisor was notified. Weekly supervisor initials were present, indication that the issue with documentation or humidity was addressed.	Minor Deficiency Resolved 07/22/2019
thermometer on a da	ay 2019 all temperature values recorded were 64 degrees. Please ensure the tech is resetting the aily basis.	
DCM		
A EEK (Contration)	al Health and Safety of Personnel)	
Other According t	to the room log for dirty cage wash, monthly documentation was not provided to indicate that the ety tests and signage were checked during the months of May and June 2019.	Minor Deficiency Resolved 07/22/2019
Other According t		Resolved

 Temperature/Humidity Values
 Husbandry logs throughout the facility indicate that on several days, temperature and humidity levels were outside the acceptable ranges. 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.
 No Deficiency

 8. USDA Species
 Clinical Records
 Inspectors (including at least two IACUC members) conducted a semiannual records review of USDA covered species medical records maintained by DCM veterinary staff, during the inspection of the DCM
 No Deficiency

 This review covers records maintained by DCM Vet Services for procedures and services provided to other investigators.
 In addition, IACUC inspectors reviewed records for animals used under protocols for which DCM Veterinarians are PI.

 Please ensure that surgical records indicate the species and type of procedure, especially for multi-species protocols (i.e. 19-025, Shipley).
 Please cover and the species and type of procedure, especially for multi-species protocols

Room Inspected Response Due: 7/31/2019 Issue(s) Resolved: 8/12/2019 **Resolution occurred after the due date for the reason listed below.** Reason: Delayed response from the PI.

Room Inspected: Response Due: 7/31/2019 Issue(s) Resolved: 8/12/2019 **Resolution occurred after the due date for the reason listed below.** Reason: Delayed response from the Pl.



Facility Inspection ID 3

Inspectors

Inspection Date 07/17/2019

Response Due Date 08/06/2019

Report Date: 11/11/2019

Inspection Summary

Room	Checklist Type	Principal Investigator	Deficiencies
	Pl		0
	PI		0
	PI		0
	DCM		* 1

Inspection Details

Room	Checklist Type	rincipal Investigator		
4	PI			
	5. EHS (Occupational Heal	s ,		
	protocol numbers (16-133, Please remove this sheet of	d Documentation The Chemical Hazard Sheet on 16-013), and hazard cards were not present on any of 1 update it with the current protocol number(s).		No Deficiency
12	PI			
	2. Animal Identification (Ca			
	17-166). If a DCM RFID ca	cages were observed without the required cage card i d is not available, the cage must be identified with the which the cage card was requested.		No Deficiency
15	PI			
	2. Animal Identification (Ca			
	ACAP: 18-09	eral cages were observed without the required cage ca 6). If a DCM RFID card is not available, the cage must d should have the date in which the cage card was rec	be identified with the PI's name, the	No Deficiency
	3. Drugs/Biologics			
	housing room. All chemical	rs found several expired medical products (BNP, exp 6 and supplies maintained in the animal care and housi Expired-do not Use" or "For Acute Use Only" to avoid a	ng areas must be discarded after the	No Deficiency
00	DCM			
	1. Documentation			
		, inspectors noted that husbandry logs includ the acceptable range, recorded without notation that th ent, however there is no indication that the issue with o	e supervisor was notified (*). Weekly	Minor Deficiency Resolved 07/31/2019
	5. EHS (Occupational Heal	h and Safety of Personnel)		
	within the space. Per the E	nazardous equipment were being stored in an unlocker t&S Director present for the inspection, employees with se work with EH&S to identify those requiring the traini	n access to the keys should have Lock	No Deficiency
	Equipment			Acceptable
	7. Physical Plant			
	Conitization Diagon prov	de adequate mop storage in to avoid	storage in the sink.	No Deficiency

Facility Inspection ID10Inspectors08/21/2019

Inspection Summary

Room Checklist Type	Principal Investigator	Deficiencies
DCM		0
PI		0

Inspection Details

oom	Checklist Type	Principal Investigator		
	DCM 10. Other			
I		spectors noted outdated IACUC CO2 ager with an updated copy and advise	Standard postings in Inspectors I	Acceptable •
	5. EHS (Occupational H	ealth and Safety of Personnel)		
-		l that a faceshield was not available fo worn in the cage wash area when har	r use when handling the chemicals in the dirty cage wash area. Idling chemicals.	No Deficiency
(ave a proper path of egress should ar	n cage wash area was hindered by equipment. Inspectors n emergency occur with both the DCM manager and the DCM	No Deficiency
	with the current due dat	rtification sticker for the hood in a e or have the machine recertified.	shows 07/2019 as the due date. Please replace the sticker	No Deficiency
	PI			
	Cage Density			
1	had not been addressed comment to the comme weaning of your animals	d. Please address cages by the end of nt section at the bottom of the pink can	It was past the date of weaning present on the pink card that day on the wean date by either separating or adding a rd. If low body weight or other health issues are delaying the on to your protocol. Please reference the Mouse Cage Density	No Deficiency

Report Date: 09/04/2019

Facility ir	spection ID 13		
Inspector Inspectio		1	Response Due Date 10/03/2019
nspecti	on Summary		
Room	Checklist Type	Principal Investigator	Deficiencies
	DCM		1
nspecti	on Details		
Room	Checkilst Type	Principal Investigator	
	DCM 1. Documentation		
	in for the r	Inspectors noticed that several daily duties nonth of August 2019. The facility manager h on was made for missed duties.	s were not completed according to the husbandry logs Minor Deficiency ad conducted the weekly signoff for this month, Resolved 09/23/2019

Facility Inspection ID 7

Inspectors

Inspection Date 08/08/2019

Response Due Date 08/29/2019

Report Date: 11/11/2019

Inspection Summary

Room	Checklist Type	Principal Investigator	Deficiencies
	Other		0
	Other		0
	PI		*
	PI		
	DCM		0
	DCM		- **
	PI		0
	DCM		0
	PI		1
	Other		0
	Other		0
	Other		0
	PI		1
	DCM		0
	DCM		0
	DCM		- 1
	PI		0
	PI		· 🏠
	PI		0
	Other		0
	PI		0
	PI		1. A A A A A A A A A A A A A A A A A A A
	Other		0
	PI		0
	PI		0
	DCM		0
	DCM		0
	PI		0
	DCM		0

Inspection Details

Room	Checklist Type	Principal Investigator	
	Other 7. Physical Plant		
	bedding. It was und	ere was behavioral equipment maintained in the room. Some of the behavioral chambers contained clear how long the bedding was maintained within the chambers prior to use and how often it was arify the maintenance of chambers in this area.	No Deficiency
	Other		
	EHS (Occupation	nal Health and Safety of Personnel)	
	Equipment Inspe	ectors noted that the F/air canisters were upright, blocking the holes on the bottom. EHS has issued	No Deficiency
	disposal of F/AIR c	or the handling of isoflurane and charcoal canisters. A newly created FAQ sheet for the use and anisters can be found here: https://research.unc.edu/files/2017/08/isoflurane-fact-sheet.pdf	
	disposal of F/AIR c		
	disposal of F/AIR c	anisters can be found here: https://research.unc.edu/files/2017/08/isoflurane-fact-sheet.pdf te air flow, the holes on the bottom (F/Air canister) or top of canister (VaporGuard) must not be	
	disposal of F/AIR ca "To ensure adequa blocked. To ensure	anisters can be found here: https://research.unc.edu/files/2017/08/isoflurane-fact-sheet.pdf te air flow, the holes on the bottom (F/Air canister) or top of canister (VaporGuard) must not be	·

4. Feed/Water	
Expiration Date Inspectors identified unsealed feed being stored in the PI's locker within without an expiration date or mill date. All feed must be clearly labeled with type and an accurate expiration or milling date. Feed is considered expired 6 months after the mill date or if provided, on the expiration date.	Minor Deficiency Reso 09/05/2
1. Documentation	
Husbandry Logs Inspectors noted that husbandry logs for these spaces included several humidity values, over multiple months, outside of the acceptable range, recorded without notation that the supervisor was notified (*). Weekly supervisor initials were present, however there was no indication that the issue with documentation or humidity was addressed.	No Deficiency
7. Physical Plant Surgical/Procedure Rooms Inspectors noted that the eye wash dust covers were flipped down and not serving their intended purpose.	No Deficiency
DCM	
 Documentation Husbandry Logs Inspectors noted that supervisor documentation was not provided in husbandry logs for two of the four weeks in June 2019. 	Minor Deficiency Reso 08/26/2
PI	
3. Drugs/Biologics	
Expiration Date Inspectors identified Styptic Powder in a locker with a past expiration date. 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.	No Deficiency
DCM	
 Physical Plant Room Inspectors identified chipped paint on the interior walls (located on the left wall when entering room, ~6 ft from 	No Daficienze
Room Inspectors identified chipped paint on the interior walls (located on the left wall when entering room, ~6 ft from floor) that should be repaired to facilitate proper sanitation. PI	NU Denciency
4. Feed/Water	
Expiration Date Inspectors identified an opened container of Hydrogel with a past expiration date. 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.	Minor Deficiency Reso 08/26/2
6. Cage Density	
Breeding Cages Inspectors noted three cages on that were past the date of weaning present on the pink card that had not been addressed. Please address cages by the end of day on the wean date by either separating or adding a comment to the comment section at the bottom of the pink card. If low body weight or other health issues are delaying the weaning of your animals at day 23 please consider an exception to your protocol.	No Deficiency
Other 2. Animal Identification (Cage Cards)	
Missing Cage Card Three cages with temporary cage cards were identified on . 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	No Deficiency
which the cage card was requested.	
Other	
3. Drugs/Biologics	
Labeling Inspectors found 2 bottles containing liquids ("Sterile 0.5% SDS" and "1 x PBS") without full chemical names or expiration dates. 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."	No Deficiency
Other	
9. Carcass Disposal	
Carcass Bag Labeling Inspectors noted a bag with dead mouse parts in an unlabeled bag within the carcass freezer in the box with your name on it. According to the IACUC Rodent Euthanasia policy, bags are to be labeled with the protocol number before disposal.	No Deficiency
PI 6. Cage Density	
Breeding Cages Multiple cages were not clearly marked. Please ensure that all cages that are covered under the approved Exception are clearly marked. This must be done with a 'E' written on each cage card, in red, or if all cages in the room are covered, a sign may be placed on the inside of the room door indicating that all cages are covered under an Exception. If the Exception applies to the litter within the cage, the E must also be written in the comments box on the pink card.	Minor Deficiency Reso 09/05/21
DCM	
1. Documentation	



nultiple months, outside of the acceptable range, recorded without notation that the supervisor was notified (*). Weekly supervisor initials were present, however there was no indication that the issue with documentation or humidity was	
addressed. This applied to both room	
DCM	
I. Documentation	
Husbandry Logs Inspectors noted that husbandry logs for these spaces included several humidity values, over nultiple months, outside of the acceptable range, recorded without notation that the supervisor was notified (*). Weekly supervisor initials were present, however there was no indication that the issue with documentation or humidity was addressed. This applied to both room DCM	No Deficiency
I. Documentation	
Husbandry Logs Inspectors observed entries missing for weekly supervisor initials within the husbandry logs in June 2019 in multiple cubicles in this suite.	Minor Deficiency Resol 08/26/20
PI 2. Animal Identification (Cage Cards)	
Missing Cage Card Three cages with temporary cage cards were identified on 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.	No Deficiency
PI 1. Feed/Water	
Expiration Date Inspectors identified unsealed feed being stored in the PI's locker within without an expiration date or mill date. All feed must be clearly labeled with type and an accurate expiration or milling date. Feed is considered expired 6 months after the mill date or if provided, on the expiration date.	Minor Deficiency Reso 09/23/2
5. EHS (Occupational Health and Safety of Personnel)	
Biological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number.	No Deficiency
Other 5. EHS (Occupational Health and Safety of Personnel)	
Biological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number.	No Deficiency
The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number.	
Pl 5. EHS (Occupational Health and Safety of Personnel) 3iological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number.	No Deficiency
Pl 5. EHS (Occupational Health and Safety of Personnel) Biological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number. Pl 1. Documentation	·
PI 5. EHS (Occupational Health and Safety of Personnel) 3iological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number. PI 1. Documentation PI Duty Check Sheets The check sheet for Duties Performed by Investigator (for 19-065) was found to be ncomplete. Documentation that cage change is performed is required with a maximum of two consecutive weeks between observations and for the entire duration written on the sheet including weekends and holidays.	Minor Deficiency Reso
PI S. EHS (Occupational Health and Safety of Personnel) Siological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number. contained an expired protocol number. PI Documentation Pl 1. Documentation Pl PI Duty Check Sheets The check sheet for Duties Performed by Investigator (for 19-065) was found to be normalies. Documentation that cage change is performed is required with a maximum of two consecutive weeks between observations and for the entire duration written on the sheet including weekends and holidays. 2. Animal Identification (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	Minor Deficiency Reso
PI S. EHS (Occupational Health and Safety of Personnel) 3iological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number. PI Documentation PI Documentation PI Documentation PI Documentation PI Duty Check Sheets The check sheet for Duties Performed by Investigator (for 19-065) was found to be no complete. Documentation that cage change is performed is required with a maximum of two consecutive weeks between observations and for the entire duration written on the sheet including weekends and holidays. 2. Animal Identification (Cage Cards) Missing Cage Card Eleven cages with temporary cage cards were identified on 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.	Minor Deficiency Reso 09/05/2
PI 3. EHS (Occupational Health and Safety of Personnel) 3. EHS (Occupational Health and Safety of Personnel) 3. Biological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol humber at the time of the inspection. Please update it with the current protocol number. PI 1. Documentation PI Duty Check Sheets The check sheet for Duties Performed by Investigator (for 19-065) was found to be ncomplete. Documentation that cage change is performed is required with a maximum of two consecutive weeks between observations and for the entire duration written on the sheet including weekends and holidays. 2. Animal Identification (Cage Cards) Missing Cage Card Eleven cages with temporary cage cards were identified on . 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. Three cages were observed without the required cage card information ,, after being separated 7/19. 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.	Minor Deficiency Reso 09/05/2
Implate it with the current protocol number. PI S. EHS (Occupational Health and Safety of Personnel) Biological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number. PI Documentation Pl Decumentation Pl Decumentation that cage change is performed by Investigator (for 19-065) was found to be noronplete. Documentation that cage change is performed is required with a maximum of two consecutive weeks between observations and for the entire duration written on the sheet including weekends and holidays. 2. Animal Identification (Cage Cards) Wissing Cage Card Eleven cages with temporary cage cards were identified on 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. Chree cages were observed without the required cage card information in protocol number, and should have the date in which the cage card was requested. RFID cards should be ordered and placed as soon as bossible. Other	Minor Deficiency Reso 09/05/2
pi Pi Stells (Occupational Health and Safety of Personnel) Silological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number. Pi 1. Documentation Pi Duty Check Sheets The check sheet for Duties Performed by Investigator (for 19-065) was found to be incomplete. Documentation that cage change is performed is required with a maximum of two consecutive weeks between observations and for the entire duration written on the sheet including weekends and holidays. 2. Animal Identification (Cage Cards) Wissing Cage Card Eleven cages with temporary cage cards were identified on 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. Price cages were observed without the required cage card information in 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 soosible. Other 2. Animal Identification (Cage Cards) Wissing Cage Card Card Cards Other 2. Animal Identification (Cage Cards) Wissing Cage Card Card Cards Other 2. Animal Identification (Cage Cards) Wissing Cage Card Card Cards Wissing Cage Card Card Cards <tr< td=""><td>Minor Deficiency Reso 09/05/2</td></tr<>	Minor Deficiency Reso 09/05/2
Indicate it with the current protocol number. PI S. EHS (Occupational Health and Safety of Personnel) Sidlogical/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number. PI Documentation PI Documentation PI Documentation PI Documentation PI Documentation PI Documentation PI Documentation that cage change is performed is required with a maximum of two consecutive weeks between observations and for the entire duration written on the sheet including weekends and holidays. 2. Animal Identification (Cage Cards) Wissing Cage Card Eleven cages with temporary cage cards were identified on 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 soosible. Other 2. Animal Identification (Cage Cards) Wissing Cage Card Contained a half rack of mouse cages in which 12 cages were missing DCM cage cards and there was no notation by the investigator indicating that new cage cards had been ordered. Please provide each cage with a cage card having the current ACAP ID. Nearby cages were identified by protocol I6-276. <td>Minor Deficiency Reso 09/05/2</td>	Minor Deficiency Reso 09/05/2
plate it with the current protocol number. Pl 5. EHS (Occupational Health and Safety of Personnel) Siological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number. Pl 1. Documentation Pl Duty Check Sheets The check sheet for Duties Performed by Investigator (for 19-065) was found to be nocomplete. Documentation that cage change is performed is required with a maximum of two consecutive weeks between observations and for the entire duration written on the sheet including weekends and holidays. 2. Animal Identification (Cage Cards) Wissing Cage Card Eleven cages with temporary cage cards were identified on fl 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. Three cages were observed without the required cage card information at the current protocol number, and should have the date in which the cage card was requested. 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 bossible. Other 2. Animal Identification (Cage Cards) Wissing Cage Card Card Cards Wissing Cage Card Card Cards Wissing Cage Card Card Cards	Minor Deficiency Resc 09/05/2
plate it with the current protocol number. Pl S. EHS (Occupational Health and Safety of Personnel) Biological/Chemical Hazard Documentation The Chemical Hazard Sheet on contained an expired protocol number at the time of the inspection. Please update it with the current protocol number. Pl L Documentation Pl Duty Check Sheets The check sheet for Duties Performed by Investigator (for 19-065) was found to be no onsecutive weeks between observations and for the entire duration written on the sheet including weekends and holidays. Animal Identification (Cage Cards) Wissing Cage Card Eleven cages with temporary cage cards were identified on . 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. Three cages were observed without the required cage card information after being separated 7/19. 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 bossible. Other 2. Animal Identification (Cage Cards) Wissing Cage Card	Minor Deficiency Reso 09/05/2 No Deficiency

Obtained by Rise for Animals. Uploaded 07/05/2020

DCM	
10. Other	
DCM SOPs The laminar flow hood in contained 3 bins of autoclaved food which were extending over the grate and outside of the hood area. When working with autoclaved food and other sterile items, objects should be placed within the grate to maintain sterility.	No Deficienc
DCM 5. EHS (Occupational Health and Safety of Personnel)	
PPE An old version of the Personal Protective Equipment (PPE) signage was posted in the cage wash area. Update the PPE signage to correspond to current practices.	No Deficienc
 Signage The Cage wash area in this facility requires hearing protection. There was hearing protection signage posted on only one door of the cage wash area. Please post appropriate hearing protection signage on all entry doors into the cage wash area so that personnel are advised of the need to wear hearing protection. Physical Plant 	No Deficienc
Vehicles The vehicle sanitation log for vehicle #316 indicated it was last washed on 11/7/18 despite being used on 8/5, 8/6, ad 8/7 of 2019. Please ensure that these vehicles are sanitized regularly and that these actions are documented properly.	No Deficienc
The vehicle sanitation log for vehicle #485 indicated a large time gap between washings on 6/20/19 – 8/8/19 despite regular use. Please ensure that these vehicles are sanitized regularly and that these actions are documented properly.	
PI 4. Feed/Water	11.1 1
Expiration Date The special diet in room was labeled with a milling date of 01/2019 and an expiration date of 12/2019. The Guide for the Care and Use of Laboratory Animals states (page 66) 'Purified and chemically defined diets are often less stable than natural-ingredient diets and their shelf life is usually less than 6 months; they should be stored at 39 degree F or lower.	No Deficienc
Unless the investigator has scientific justification or an exception for a greater than 6-month storage period for special diet approved in the IACUC protocol 18-293, the allowed maximum time period for animal feed is 6 months.	
Labeling See above comment.	No Deficient
1 Documentation	M. O.C.
Husbandry Logs In the DCM maintained husbandry logs, the supervisor weekly check off was missing for one week in July, 2019.	NO Deficient
 EHS (Occupational Health and Safety of Personnel) Signage The Needle Safety posting in the anteroom of the room was an old version. Please post the most current 	
	No Deficienc

Response Due: 8/29/2019 Issue(s) Resolved: 9/5/2019 Resolution occurred after the due date for the reason listed below. Reason: Delayed response from the PI.

Room Inspected: Response Due: 8/29/2019 Issue(s) Resolved: 9/5/2019 Resolution occurred after the due date for the reason listed below. Reason: Delayed response from the PI.

Room Inspected: Response Due: 8/29/2019 Issue(s) Resolved: 9/5/2019 Resolution occurred after the due date for the reason listed below. Reason: Delayed response from the PI.

Room Inspected: Response Due: 8/29/2019 Issue(s) Resolved: 9/23/2019 Resolution occurred after the due date for the reason listed below. Reason: Delayed response from the PI.

Room Inspected: Response Due: 8/29/2019 Issue(s) Resolved: 9/5/2019 Resolution occurred after the due date for the reason listed below. Reason: Delayed response from the PI.

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Facility:

Facility Inspection ID 12

Inspectors

Inspection Date 09/12/2019

Response Due Date 09/30/2019

Report Date: 10/08/2019

Inspection Summary

Room	Checklist Type	Principal Investigator	Deficiencies
	DCM		0
	DCM		0
	DCM		0
	PI		0
	EHS		0
	DCM		0
	Other		0
	PI		0
	PI		0
	PI		0
	DCM		1. The second
	PI		0
	DCM		0
	DCM		0
	PI		0

Inspection Details

Checklist Type	Principal Investigator	
DCM		
1. Documentation		
•	Inspectors did not observe documentation of duties in the husbandry logs for one day in June. at the duties were completed but not documented as a result of being understaffed.	No Deficiency
DCM 1. Documentation		
,	Inspectors did not observe documentation of duties in the husbandry logs for one day in June. at the duties were completed but not documented as a result of being understaffed.	No Deficiency
DCM		
1. Documentation		
•	Inspectors did not observe documentation of duties in the husbandry logs for one day in June. at the duties were completed but not documented as a result of being understaffed.	No Deficiency
PI		
4. Feed/Water		
month and day. Ple	ors observed feed in the isolators that did not have the year written on them other than the ase label all feed with the complete milling date and/or expiration date.	No Deficiency
EHS		
	al Health and Safety of Personnel)	
the sticker with the	ecertification sticker for the hood in <u>shows an expiration date of 5/2018</u> . Please replace current due date or have the machine recertified.	No Deficiency
DCM		
EHS (Occupation	al Health and Safety of Personnel)	
	ash was last checked on July 2019. Eyewash stations need to be checked and flushed monthly. ush the eyewash and note this on the tag.	No Deficiency
Other		
3. Drugs/Biologics		
medications box. It supplies maintained	Inspectors identified eye lubricant (BNP+H) with a past expiration date (7/2019) in the was also identified that this eye lubricant was labeled for use in E. All chemicals and I in the animal care and housing areas must be discarded after the expiration date or labeled, "or "For Acute Use Only" to avoid accidental use in animals	No Deficiency
PI		
3. Drugs/Biologics		



Report Date: 10/08/2019

"Expired - do not use" or "For acute use only" to avoid accidental use in animals.	
2. Animal Identification (Cage Cards)	
Missing Cage Card Four cages were observed without the required 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 the date when the cage card was requested.	No Deficiency
2. Animal Identification (Cage Cards)	
Expired Protocol Inspectors noted 10 cages located on that had an expired protocol number (16-071). All cages must be identified with the current protocol number (19-043).	No Deficiency
1. Documentation	
Husbandry Logs Inspectors observed that two dates with low humidity were not noted in the husbandry logs that the supervisor was notified (with an asterisk). Weekly supervisor initials were present, however there was no indication that the issue with documentation or humidity were addressed.	Minor Deficiency Resolve 10/08/201
PI	
PI 2. Animal Identification (Cage Cards)	
2. Animal Identification (Cage Cards) Missing Cage Card A cage was observed without the required cage card. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and the date when the cage card was	No Deficiency
2. Animal Identification (Cage Cards) Missing Cage Card A cage was observed without the required cage card. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and the date when the cage card was requested. DCM	No Deficiency
 2. Animal Identification (Cage Cards) Missing Cage Card A cage was observed without the required cage card. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and the date when the cage card was requested. DCM 5. EHS (Occupational Health and Safety of Personnel) Signage Inspectors observed that the needle safety sheet is the previous version. Please update it with the current version. 	No Deficiency No Deficiency
 Animal Identification (Cage Cards) Missing Cage Card A cage was observed without the required cage card. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and the date when the cage card was requested. DCM 5. EHS (Occupational Health and Safety of Personnel) Signage Inspectors observed that the needle safety sheet is the previous version. Please update it with the current version. DCM 	
 Animal Identification (Cage Cards) Missing Cage Card A cage was observed without the required cage card. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and the date when the cage card was requested. DCM 5. EHS (Occupational Health and Safety of Personnel) Signage Inspectors observed that the needle safety sheet is the previous version. Please update it with the current version. DCM 4. Feed/Water 	No Deficiency
 2. Animal Identification (Cage Cards) Missing Cage Card A cage was observed without the required cage card. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and the date when the cage card was requested. DCM 5. EHS (Occupational Health and Safety of Personnel) Signage Inspectors observed that the needle safety sheet is the previous version. Please update it with the current version. DCM 4. Feed/Water Labeling Inspectors identified 5VOF feed in an animal transport box without an expiration date or mill date. All feed must be clearly labeled with an accurate expiration date and/or milling date. 	
 2. Animal Identification (Cage Cards) Missing Cage Card A cage was observed without the required cage card. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and the date when the cage card was requested. DCM 5. EHS (Occupational Health and Safety of Personnel) Signage Inspectors observed that the needle safety sheet is the previous version. Please update it with the current version. DCM 4. Feed/Water Labeling Inspectors identified 5VOF feed in an animal transport box without an expiration date or mill date. All feed must be clearly labeled with an accurate expiration date and/or milling date. 	No Deficiency
 2. Animal Identification (Cage Cards) Missing Cage Card A cage was observed without the required cage card. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and the date when the cage card was requested. DCM 5. EHS (Occupational Health and Safety of Personnel) Signage Inspectors observed that the needle safety sheet is the previous version. Please update it with the current version. DCM 4. Feed/Water Labeling Inspectors identified 5VOF feed in an animal transport box without an expiration date or mill date. All feed must be clearly labeled with an accurate expiration date and/or milling date. PI 4. Feed/Water Other Inspectors observed five water bottles provided by the PI that were left in the hood. Water bottles must be 	No Deficiency No Deficiency
 2. Animal Identification (Cage Cards) Missing Cage Card A cage was observed without the required cage card. If a DCM RFID card is not available, the cage must be identified with the PI's name, the current protocol number, and the date when the cage card was requested. DCM 5. EHS (Occupational Health and Safety of Personnel) Signage Inspectors observed that the needle safety sheet is the previous version. Please update it with the current version. DCM 4. Feed/Water Labeling Inspectors identified 5VOF feed in an animal transport box without an expiration date or mill date. All feed must be clearly labeled with an accurate expiration date and/or milling date. 	No Deficiency No Deficiency

Room Inspected: Response Due: 9/30/2019 Issue(s) Resolved: 10/8/2019 **Resolution occurred after the due date for the reason listed below.** Reason: Delayed response from DCM.

Facility	Inspection	D	5
Inspect	ors		

Inspection Date	07/17/2019	Response Due Date 08/06/2019

Inspection Summary

Room	Checklist Type	Principal Investigator		Deficiencies
	PI			0
	DCM			4
	DCM			2
	DCM			2

Inspection Details

m	Checklist Type	Principal Investigator	
	PI 2. Animal Identification	I (Cage Cards)	
	present to indicate whe	Itiple cages of animals that were separated due to fighting by DCM Vet Services. There is no date en the card was placed or when cards were ordered. Please order new cage cards for these cages rary cards as soon as possible.	No Deficiency
	1. Documentation		
	Husbandry Logs In humidity values, over r the supervisor was not documentation or hum DCM	multiple months (April-June, 2019), outside of the acceptable range, recorded without notation that tified (*). Weekly supervisor initials were present, however there is no indication that the issue with	Minor Deficiency Resolv 07/31/20
	1. Documentation		
		spectors noted that husbandry logs included several humidity/temperature values, over multiple acceptable ranges, recorded without notation that the supervisor was notified (*). Weekly	Minor Deficiency Resolv
	was addressed.	e present, however there is no indication that the issue with documentation or humidity/temperature	07/31/20
	was addressed. 4. Feed/Water	e present, however there is no indication that the issue with documentation or humidity/temperature	
	was addressed. 4. Feed/Water Expiration Date Wa		07/31/20 Minor Deficiency Resoly 07/31/20
	was addressed. 4. Feed/Water	e present, however there is no indication that the issue with documentation or humidity/temperature	Minor Deficiency Resolv
	was addressed. 4. Feed/Water Expiration Date Water DCM 10. Other DCM SOPs According	e present, however there is no indication that the issue with documentation or humidity/temperature	Minor Deficiency Resolv
	was addressed. 4. Feed/Water Expiration Date Water DCM 10. Other DCM SOPs According	a present, however there is no indication that the issue with documentation or humidity/temperature ater bottles with a past expiration date were present in an animal housing room. ng to the autoclave documentation, cages were processed through the autoclave in this facility	Minor Deficiency Resol 07/31/20 Minor Deficiency Resol
	was addressed. 4. Feed/Water Expiration Date Water DCM 10. Other DCM SOPs According without having a second 4. Feed/Water Expiration Date Inst days/months. Feed exp within 3 weeks, or disc	a present, however there is no indication that the issue with documentation or humidity/temperature ater bottles with a past expiration date were present in an animal housing room. ng to the autoclave documentation, cages were processed through the autoclave in this facility	Minor Deficiency Resol 07/31/20 Minor Deficiency Resol
	was addressed. 4. Feed/Water Expiration Date Water DCM 10. Other DCM SOPs According without having a second 4. Feed/Water Expiration Date Inst days/months. Feed exp within 3 weeks, or disc humidities are out of admaintained. 5. EHS (Occupational I	a present, however there is no indication that the issue with documentation or humidity/temperature ater bottles with a past expiration date were present in an animal housing room. Ing to the autoclave documentation, cages were processed through the autoclave in this facility nd person initial that they had checked the cages (2 days). Spectors noted values above 50% humidity documented within the posed to temperatures and/or humidities above 70 degrees and/or 50 % respectively, must be used carded. Feed should be labeled to ensure that it is not accidentally fed to animals if temperatures or	Minor Deficiency Resol 07/31/20 Minor Deficiency Resol 07/31/20 Minor Deficiency Resol 07/31/20

Facility Inspection ID	6
Inspectors	
Inspection Date	07/31/2019

Inspection Summary

Room	Checklist Type	Principal Investigator	Doficiancias
	DCM		0
~ 2	2004 A XA		
ispectio	n Details		
Room	Checklist Type	Principal Investigator	
	DCM		
	5. EHS (Occupa	ional Health and Safety of Personnel)	
	Safety The El	S inspector indicated that the 'authorized area' (acce	ess panel to autoclave) must be locked to No Deficiency
	provent unautho	ized/untrained personnel from accessing it.	

Report Date: 06/14/2019

Facility Inspection ID	11
Inspectors	
Inspection Date	08/29/2019

Inspection Summary

Roon	200 X X2 C 200	Principal Investigator	Deficiencies	
	DCM		0	

Inspection Details

Room	Checklist Type	Principal Investigator	
	DCM		
	5. EHS (Occupation	nal Health and Safety of Personnel)	
	Safety Kevs for e	entering hazardous equipment were located in an unlocked location, accessible to any employee	Acceptable
	within the space. E	Employees with access to the keys should have Lock Out - Tag Out training. Please work with EH	
	within the space. E to identify those rec		&S
	within the space. E to identify those rec	Employees with access to the keys should have Lock Out - Tag Out training. Please work with EH equiring the training, or utilize a secure location for the keys.	&S
	within the space. E to identify those rec Equipment Once	Employees with access to the keys should have Lock Out - Tag Out training. Please work with EH equiring the training, or utilize a secure location for the keys.	&S

Report Date: 09/23/2019

Facility Inspection ID	16
Inspectors	
Inspection Date	10/02/2019

Response Due Date 10/17/2019

Inspection Summary

Room	Checklist Type	Principal Investigator	Deficiencies
	DCM		4
	DCM		
	Other		0
	Pl		0
	Pl		0
	PI		0
	DCM		1
	DCM		2
	PI		0
	Pl		0
	DCM		0
	DCM		3
	DCM		1
	Other		0
	PI		4
	DCM		1

Inspection Details

om	Checklist Type	Principal Investigator	
	DCM		
	values, over multiple was notified (*). Week documentation or hun	nspectors noted that husbandry logs for these spaces included several temperature months, outside of the acceptable range, recorded without notation that the supervisor dy supervisor initials were present, however there was no indication that the issue with nidity was addressed. This applied to both room	Minor Deficiency Resolved 10/14/2019
	DCM 1. Documentation		
	Husbandry Logs In values, over multiple r was notified (*). Week	nspectors noted that husbandry logs for these spaces included several temperature months, outside of the acceptable range, recorded without notation that the supervisor dy supervisor initials were present, however there was no indication that the issue with nidity was addressed. This applied to both room	Minor Deficiency Resolved 10/14/2019
	Other 3. Drugs/Biologics		
	Only" to avoid accider drugs, fluids, or suture	All chemicals and supplies maintained in the animal care and e discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use ntal use in animals. USDA policy #3 states: The use of expired medical materials such as es on regulated animals is not considered to be acceptable veterinary practice and is not ate veterinary care as required by the regulations promulgated under the Animal Welfare	
	Team would greatly a gloves, suture).	ave materials that expire and cannot be utilized by your laboratory, the DCM Training ppreciate donations for items we can utilize in our hands-on training courses (sterile	
		Rooms Please remove cardboard form the animal care and use spaces as it is neither a. Inspectors noted two cardboard tubes and one cardboard box on the floor.	No Deficiency
	Please remove the sto Pl	prage bin from the floor, so that the room can be properly sanitized.	
	2. Animal Identificatio Missing Cage Card	n (Cage Cards) Cages were observed without the required cage card information (protocol 18-188). If a	No Deficiency



PI 1. Documentation	
	No Deficiency
1. Documentation	
PI Duty Check Sheets Inspectors could not locate a PI husbandry check sheet (protocol 19-070) to verify that animal feeding had been completed for the month of October 2019, although there were cages identified with "PI Will Feed" stickers. The check sheets must be completed when performing husbandry duties	No Deficiency
DCM	
 Documentation Husbandry Logs Inspectors noticed that a weekly duty, clean supply/vents, was not completed according to the husbandry logs multiple times over the past few months. The facility manager had conducted the weekly signoff for these months, however no notation was made for missed duties. DCM 	Minor Deficiency Resolved 10/14/2019
1. Documentation	
Husbandry Logs Inspectors noticed that a weekly duty, clean supply/vents, was not completed according to the husbandry logs multiple times over the past few months. The facility manager had conducted the weekly signoff for these months, however no notation was made for missed duties. 4. Feed/Water	Minor Deficiency Resolved 10/14/2019
	Minor Deficiency
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.	Resolved 10/14/2019
PI 1 Description	
Documentation PI Duty Check Sheets Inspectors could not locate a PI husbandry check sheet (protocol 17-232) to verify that animal feeding had been completed for the month of October 2019, although there were cages identified with "PI Will Feed" stickers. The check sheets must be completed when performing husbandry duties. PI	No Deficiency
1. Documentation	AL 20 21
PI Duty Check Sheets Inspectors could not locate a PI husbandry check sheet (protocol 17-128) to verify that animal feeding had been completed for the month of October 2019, although there were cages identified with "PI Will Feed" stickers. The check sheets must be completed when performing husbandry duties. DCM	No Deficiency
7. Physical Plant	
Room Inspectors identified chipped paint on the wall that should be repaired to facilitate proper sanitation. The chip is located above the card reader and is larger than a quarter in size. DCM	No Deficiency
1. Documentation	
Husbandry Logs Inspectors noticed that a weekly duty, clean supply/vents, was not completed according to the husbandry logs multiple times over the past few months in every cubicle in . The facility manager had conducted the weekly signoff for these months, however no notation was made for missed duties.	Minor Deficiency Resolved 10/14/2019
3. Drugs/Biologics	
Expiration Date Inspectors found several expired medical products (betadine scrub and Sodium Chloride solution) within the Macaque Bite Kit located in . 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. It was explained during the inspection that no macaques had been in the building since the expiration of these products, that new products would be obtained as soon as possible, and that macaques were not expected to be housed in the facility in the near future. 5. EHS (Occupational Health and Safety of Personnel)	No Deficiency
	Minor Deficiency
shower located in were filled in for the entire month of October 2019. The inspection of this space occurred on 10/2/19 and dates were filled in and initialed for the following 4 weeks (10/8/19, 10/15/19, 10/22/19, and 10/29/19).	Resolved 10/14/2019
7. Physical Plant	
Surgical/Procedure Rooms Inspectors noted three cages in containing cage card holders, enviro-dry bedding, and feed without labels or expiration dates. 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.	Minor Deficiency Resolved 10/14/2019
Other Inspectors noted that the broom and mop for were stored on the floor or in the mop bucket. It is recommended that a broom/mop holder be installed for proper storage.	No Deficiency
5. EHS (Occupational Health and Safety of Personnel)	
Equipment Inspectors noted an eyewash where the protective caps were not covering the eyewash. Please make sure that eyewashes are clean and covers are in place so that debris does not build up and the eyewash can be used in case of emergency.	Minor Deficiency Resolved 10/14/2019

9. Carcass Disposal	
Other Inspectors noted several bags of dead mice in plastic bags within a brown paper bag within the carcass freezer. Please empty the plastic bags into the carcass cooler and discard the paper bag.	No Deficiency
10. Other	
Other Inspectors noted that one of the lab's vaporizers is past its due date for re-calibration (4/2019) and was marked 'Do Not Use', but was being utilized during the inspection. Vaporizers used for anesthesia must calibrated at least bi-annually according to the IACUC Standard for Anesthetic Vaporizers and may be calibrated during the annual appointment scheduled by DCM veterinary services for Eagle Eye Calibration. This option is less expensive than an individual appointment and usually occurs in May-June of each year. Please look for emails from the NLAC listserv or contact DCM Vet Services regarding the DCM scheduled appointment.	Minor Deficiency Resolved 10/15/2019
DCM	
1. Documentation	
Husbandry Logs Inspectors noted that husbandry logs for this space included one humidity value during the	Minor Deficiency Resolved

Facility Inspection ID 8 Inspectors

Inspection Date 08/15/2019

Inspection Summary

Room Che	ecklist Type	Principal Investigator	Deficiencies
	PI		0
	PI		0
	PI		0
	Other		0

Inspection Details

loom	Checklist Type	Principal Investigator		
	PI			
	2. Animal Identificati	ion (Cage Cards)		
	still present on a cag	A temporary cage card on created by DCM when the ge. Please order a DCM RFID card for this cage.	ey separated the animals, is	No Deficiency
	PI			
	Animal Identificati	ion (Cage Cards)		
	not available, the ca	Two cages with temporary cage cards were identified on ge must be identified with the PI's name, the current protocol nur age card was requested.		No Deficiency
		ard on , created by DCM when they separated the animal Please order a DCM RFID card for this cage.	s in June 2019, is still	
	present on a cage. F	Please order a DCM RFID card for this cage.	s in June 2019, is still	
	present on a cage. F Pl 2. Animal Identificati Missing Cage Card not available, the ca	Please order a DCM RFID card for this cage.	. If a DCM RFID card is	No Deficiency
	present on a cage. F Pl 2. Animal Identificati Missing Cage Card not available, the ca	Please order a DCM RFID card for this cage. ion (Cage Cards) I Two cages with temporary cage cards were identified on i ge must be identified with the PI's name, the current protocol nur	. If a DCM RFID card is	No Deficiency
	Present on a cage. F Pl 2. Animal Identificati Missing Cage Card not available, the ca date in which the ca Other	Please order a DCM RFID card for this cage. ion (Cage Cards) I Two cages with temporary cage cards were identified on i ge must be identified with the PI's name, the current protocol nur	. If a DCM RFID card is	No Deficiency

Report Date: 08/29/2019

Facility Inspection ID 9

Inspectors

Inspection Date 08/15/2019

Response Due Date 08/30/2019

Report Date: 11/11/2019

Inspection Summary

Room	Checklist Type	Principal Investigator	Deficiencies
	Pl		0
	PI		°* 0
	PI		0
	Other		1

Inspection Details

Room	Checklist Type	Principal Investigator	
	PI		
	2. Animal Identification	on (Cage Cards)	
		A cage with temporary cage card was identified. If a DCM RFID card is not available, the cage the the PI's name, the current protocol number, and should have the date on which the cage card was	No Deficiency
	3. Drugs/Biologics		
	supplies maintained	nspectors identified quick stop "blood stop" with a past expiration date (July 2019). All chemicals and in the animal care and housing areas must be discarded after the expiration date or labeled, ' or "For Acute Use Only" to avoid accidental use in animals.	No Deficiency
	PI		
	3. Drugs/Biologics		
	chemicals and suppl	nspectors identified alcohol swabs with a past expiration date (June 2019) in the medication box. All ies maintained in the animal care and housing areas must be discarded after the expiration date or not Use" or "For Acute Use Only" to avoid accidental use in animals.	No Deficiency
	2. Animal Identification	on (Cage Cards)	
		One cage with temporary cage card was identified on . If a DCM RFID card is not available, entified with the PI's name, the current protocol number, and should have the date in which the cage	No Deficiency
	Other		
	3. Drugs/Biologics		
	date in the refrigerate	rs found several bottles containing pink and light yellow liquids without a chemical name or expiration or in . The EHS Laboratory Safety Manual (3-6) states that you must "Clearly spell out the I on the label any time you transfer substances from original containers to secondary containers, or ixing new substances, if the substances are not for the immediate use of the handler or preparer."	Minor Deficiency Resolv 08/28/20

Facility Inspection ID2Inspectors07/17/2019

Inspection Summary

Room	Checklist Type	Principal Investigator	Deficiencies	
	DCM		0	

Inspection Details

Room	Checklist Type	Principal Investigator	
	DCM		
	Drugs/Biologics		
		spectors could not find an expiration date on the bottle of Metoclopromide located in the medication ase ensure the drugs are properly labeled to avoid accidental use after expiration.	No Deficiency
	5. EHS (Occupational	Health and Safety of Personnel)	
	within the space. Per	ering hazardous equipment were being stored in an unlocked location, accessible to any employee the EH&S Director present for the inspection, employees with access to the keys should have Lock p. Please work with EH&S to identify those requiring the training, or utilize a secure location for the	No Deficiency
		miannual Drager calibrations were not completed as scheduled due to a supply issue (due in 7/2019). It has now been completed in all facilities.	No Deficiency
	Other Per EH&S, p ventilation for personr	lease ensure that the area where the Euthanex chamber is currently located, has adequate rel safety.	Acceptable

Report Date: 08/09/2019

Facility Inspection	1D	15	
Inspectors			

Inspection Date 09/26/2019

Response Due Date 10/15/2019

Inspection Summary

Room	Checklist Type	Principal Investigator	Deficiencies
	Other		0
	Other		0
	PI		0
	PI		· •
	PI		0

Inspection Details

m	Checklist Type	Principal Investigator	
	Other		
	7. Physical Plant		
	9/19/19 – 9/25/19 were maintained between 30	Values In Investigator-maintained procedure , the humidity levels during the perior less than 30 percent. Humidity values in the Guide indicate that mouse housing areas should be -70 percent. Humidity levels less than 30 percent can contribute to health issues in mice. Please ave noted any health issues in animals maintained in this procedure room.) ,
	Other		
	5. EHS (Occupational H	lealth and Safety of Personnel)	
	studies. Unless adequa behavioral equipment is	gator-maintained procedure , the inspectors noted equipment used for behavioral tely sanitized, handwashed equipment may pose a risk of microbial contamination. If this handwashed, please ensure that it is on a schedule to be assessed for efficacy of sanitization. coordinates and conducts this microbiologic assessment.	No Deficiency
	Unsanitized equipment from the DCM facility. I not unsealed wood).	maintained procedure , the inspectors noted a wooden board with a carboard box of for behavioral studies. Unsealed wood and cardboard cannot be sanitized effectively. represents a source of possible microbial contamination. Please remove this unsealed board f it must be replaced, please use a piece of equipment that is easily sanitized i.e., plastic, vinyl,	No Deficiency
	PI		
	2. Animal Identification		the second s
	Without proper cage ide	In one mouse cage was found without a DCM printed cage card. The cage had an dicated 'card ordered on 7/11/19.' DCM typically addresses cage card orders within a day or two entification, it is difficult to determine the investigator and associate protocol number. Please place rd on this cage located on	
	3. Drugs/Biologics		
	Expiration Date Insp Ethanol with a past exp	ectors identified a bottle of injectable NaCl with a past expiration date of 10/2018 and a bottle of iration date of 5/2019. All chemicals and supplies maintained in the animal care and housing d after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid ls.	Minor Deficiency Resolv 10/29/20
	4. Feed/Water		
	clearly labeled with an e	pectors observed a ziplock bag of Fruit Loops with no label or expiration date. All food must be expiration date to avoid accidental use.	No Deficiency
	Drugs/Biologics		
	All chemicals and suppl or labeled, "Expired-do	pectors identified a bottle of sulfatrim pediatric suspension with a past expiration date of 7/2017. lies maintained in the animal care and housing areas must be discarded after the expiration date not Use" or "For Acute Use Only" to avoid accidental use in animals.	No Deficiency
	PI		
	3. Drugs/Biologics		
		bectors identified a bottle of Ethanol with a past expiration date of 8/2019. All chemicals and the animal care and housing areas must be discarded after the expiration date or labeled,	No Deficiency

Facility Inspections Details Report	
PI 2. Animal Identification (Cage Cards)	
Missing Cage Card Multiple cages 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.	No Deficiency
Pl 2. Deven Biologica	
3. Drugs/Biologics Expiration Date Inspectors identified bacteriostatic NaCl with a past expiration date of 8/2018. 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.	No Deficiency
 Feed/Water Expiration Date Inspectors identified Fruit Loops being stored in the cabinet drawer with an expiration date of 9/2018. Please discard any expired food to avoid accidental use. 	No Deficiency
PI 2. Animal Identification (Cage Cards)	
Missing Cage Card Multiple cages 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.	No Deficiency

Room Inspected:

Response Due: 10/15/2019 Issue(s) Resolved: 10/19/2019 Resolution occurred after the due date for the reason listed below. Reason: Delayed response from the PI.

Report Date: 11/11/2019 Ŵ

Inspectors Inspection Date 07/17/2019 Response Due Date 08/0				
1100000000	388 648 66 677 177 AV 10	scoperate pare -	00/00/2010	
nspecti	ion Summary			
Room	Checklist Type	Principal Investigator Deficie	encies	
	DCM		1	
000	200.0 K 5.2 V 0001	204 X X X 4		
Room	Checklist Type DCM 1 Documentation	Principal Investigator		
Room	DCM 1. Documentation Husbandry Logs Ins multiple months, outsid	spectors noted that husbandry logs for these spaces included several humidity values, over e of the acceptable range, recorded without notation that the supervisor was notified (*). Weekly present, however there is no indication that the issue with documentation or humidity was	Minor Deficiency Resolver 08/09/2019	
Room	DCM 1. Documentation Husbandry Logs Ins multiple months, outsid supervisor initials were addressed. This applies	spectors noted that husbandry logs for these spaces included several humidity values, over e of the acceptable range, recorded without notation that the supervisor was notified (*). Weekly present, however there is no indication that the issue with documentation or humidity was	Resolved	

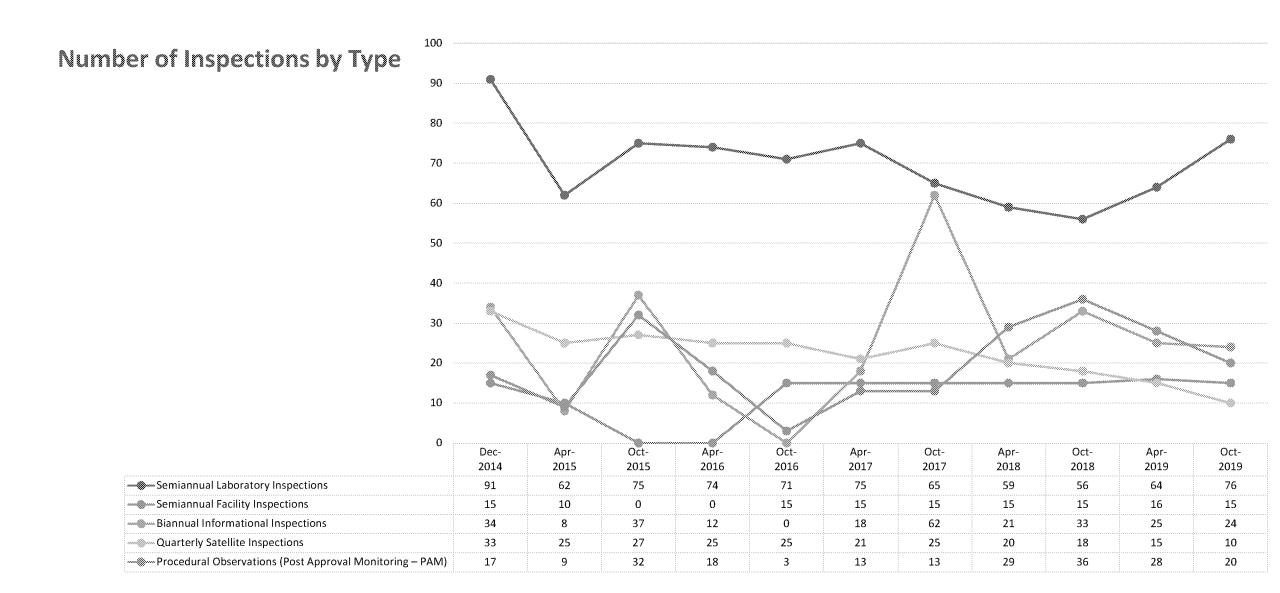
Room Inspected:

Response Due: 8/5/2019

Issue(s) Resolved: 8/9/2019

Resolution occurred after the due date for the reason listed below. Reason: Delayed response from DCM.

Inspection Statistics



Satellite Inspections	
Total Inspections	10
Total Completed Inspections	10
Total No Deficiencies	9 (90%)
Total Inspections With Deficiencies	1 (10%)

Dept	Inspection Date	APSE	Deficiencies
	04/18/2019		0
	05/28/2019		0
-	05/28/2019		0
-	06/21/2019		0
-	06/27/2019		1
-	07/30/2019		0
-	08/16/2019		0
-	08/27/2019		0
-	09/24/2019		0
-	09/25/2019		

Semiannual Inspections	
Total Inspections	76
Total Completed Inspections	76
Total No Deficiencies	75 (99%)
Total Inspections With Deficiencies	1 (1%)

Dept	Inspection Date	APSE	Deficiencies
······································	04/03/2019		0
	04/04/2019		0
	04/10/2019 04/11/2019		0
	04/11/2019		0
	04/15/2019		0
	04/16/2019		0
	04/16/2019		0
	04/18/2019 04/26/2019		0
	04/26/2019 05/03/2019		0
	05/08/2019		0
	05/13/2019		0
	05/13/2019		0
	05/15/2019		0
	05/20/2019 05/21/2019		0
	05/21/2019		0
	05/21/2019		0
	05/21/2019		0
	05/29/2019		0
	06/04/2019		0
	06/04/2019 06/05/2019		0
	06/05/2019 06/19/2019		0
	06/19/2019		0
	06/21/2019		0
	06/21/2019		0
	06/21/2019		0
	06/26/2019		0
	06/26/2019 06/27/2019		0
	06/27/2019		0
	07/11/2019		0
	07/11/2019		0
	07/11/2019		0
	07/11/2019 07/11/2019		0
	07/11/2019		0
	07/12/2019		0
	07/17/2019		0
	07/30/2019		1
	07/30/2019		0
	07/30/2019 07/31/2019		0
	07/31/2019 07/31/2019		0
	07/31/2019		0
	07/31/2019		0
	07/31/2019		0
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	08/09/2019 08/13/2019		0
	08/13/2019		0
	08/14/2019		0
	08/14/2019		0
	08/19/2019		0
	08/19/2019		0
	08/21/2019 08/21/2019		0
	08/21/2019		0
	08/22/2019		0
	08/27/2019		0
	08/28/2019		0
	08/30/2019		0
	09/03/2019 09/03/2019		0
i	09/03/2019		0
			n –
	09/04/2019 09/04/2019		0

09/11/2019	0
09/18/2019	0
09/19/2019	0
09/19/2019	0
09/24/2019	0
09/24/2019	0
09/24/2019	0

Informational Inspections	
Total Inspections	24
Total Completed Inspections	24
Total No Deficiencies	24 (100%)
Total Inspections With Deficiencies	0 (0%)

Dept	Inspection Date	APSE	Deficiencies
	04/15/2019		0
	04/18/2019		0
	04/22/2019		0
	04/22/2019		0
	04/22/2019		0
	04/22/2019		0
	04/22/2019		0
	04/25/2019		0
i i i i i i i i i i i i i i i i i i i	04/25/2019		0
i i i i i i i i i i i i i i i i i i i	04/29/2019		0
	04/29/2019		0
	05/01/2019		0
	05/03/2019		0
	05/09/2019		0
	05/15/2019		0
	05/21/2019		0
	05/31/2019		0
	06/12/2019		0
	06/21/2019		0
	07/09/2019		0
	07/12/2019		0
	09/05/2019		0
	09/17/2019		0
, ,	09/26/2019		0

Procedural Observations	
Total Inspections	20
Total Completed Inspections	20
Total No Deficiencies	19 (95%)
Total Inspections With Deficiencies	1 (5%)

Dept	Inspection Date	APSE	Deficiencies
	04/10/2019		0
	04/18/2019		0
	04/25/2019		0
	04/26/2019		0
	05/03/2019		0
	05/15/2019		0
	05/20/2019		0
	05/23/2019		0
	05/23/2019		0
	06/05/2019		0
	06/26/2019		0
	07/01/2019		0
	07/25/2019		0
	08/15/2019		1
	08/16/2019		0
	08/29/2019		0
	09/16/2019	Γ.	0
	09/17/2019	r ·	0
	09/19/2019	Г	0
	09/24/2019	r ·	0

Inspection Detail Reports

PI: Inspect PI PID Inspect Inspection ID 9654 Inspection Type Semiannual Lab Coordinators	ion Date: 05/03/2019 ors
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted 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.	Acceptable
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. Red 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 The new surgical space in MEJ was inspected and approved as part of this inspection. Please ensure that all new animal spaces are added to the protocol prior to work being conducted within them. You may send an email to <u>lacuc@med.unc.edu</u> with the applicable protocol numbers and room numbers to be added, and we will handle this administratively for you.	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	Acceptable
IACUC webpage under 'important Notices' for approximately six months: https://research.unc.edu/lacuc/	5
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) An editable PDF can be found on the "Room Use" page of the lab's online EH&S lab safety plan. Please update information and signage for new MEJ space.	No Deficiency
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) The IACUC has instituted new guidelines in for post-operative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analgesi 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.	No Deficiency a
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)	N/A
5. AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) Inspectors reminded the LAC and survival surgeon 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.	No Deficiency
Because the laboratory performs both survival and non-survival procedures in the same lab space, inspectors recommend that supplies are separated and labeled to ensure that expired materials are not used for survival procedures.	
Regardless of the type of procedure, survival or non-survival, expired anesthetics, analgesics, and euthanasia agents may never be used.	
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
	,

Obtained by Rise for Animals. Uploaded 07/05/2020

Proper Controlled Substance Storage and Records; double lock 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.	Acceptable
Inspectors advised the LAC that anytime a drug is discarded, lost, or a bottle balance reaches zero, two signatures or initials should be provided. 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	
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?) 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). This was inconsistent among records reviewed during the inspection.	No Deficiency
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
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	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	N/A
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
1. 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

Report Date: 05/07/2019

PI PID	Inspection Date: 05/21/201 Inspectors
Inspection ID 10808 Inspection Type Semiannual Lab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all applicab protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal activities spaces.	Acceptable ble vity in
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 IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable o the main
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, are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the	e lab.
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer r unless USDA or DoD/VA	, , , , , , , , , , , , , , , , , , ,
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research 3. HEALTH AND SAFETY	Acceptable
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
Procedures for using scavenging volatile anesthetics, check for Pair can weight 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, at 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) An editable PDF can be found on the "Room Use" page of the lab's online EH&S lab safety plan. Please update information and signage for new MEJ	No Deficiency J space.
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	N/A Associable
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate Means to track animal usage/Euthanasia log	Acceptable Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A
AGENTS ADMINISTERED	11/1
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropria	ately) 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
PHYSICAL PLANT	·
	Acceptable
Impervious surfaces	Acceptable
Impervious surfaces General cleanliness	
•	Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	,
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	,
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations	Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or othe	Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or othe according to the Guide	Acceptable Acceptable rwise) Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or othe according to the Guide Interior surfaces smooth and impervious to moisture	Acceptable Acceptable rwise) Acceptable Acceptable

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Report Date: 05/32/2019

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	N/A
Proper recovery monitoring	Acceptable
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: Inspec PI PID Inspect	tion Date: 08/21/2019 ors
nspection ID 11900	
nspection Type Semiannual .ab Coordinators	
Deficiency Count: 0 Inspect	ion Comments: 4
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with , the Laboratory Animal Coordinator (LAC) and Alicia Tagliatela, a lab member, during the inspection. All animal and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed 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 reg ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ularly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all applic protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal a these spaces.	
Inspectors learned that the only animal procedures conducted in your lab space (outside of DCM space) are tumor inductions. This alleviates the i for a semiannual inspection of your lab space so we are changing you over to an informational inspection schedule instead. This informational ins 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 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/iacucindex.htm). If the lab begins performing surgeries or other more invasive procedures within the lab space, w contacted so that we can visit the space semiannually.	spection PIACUC or
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 longe 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 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 la are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by	
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) Isoflurane is used with a vaporizer outfitted with a charcoal canister for scavenging. Isoflurane is considered a chemical hazard. However, inspect observe a laboratory entrance sign denoting hazards. Signs should be visible at the entrance to all laboratories to notify individuals of potential he Please obtain and display a laboratory entrance sign denoting the use of chemical hazards (isoflurane) used in this laboratory space. Signage can downloaded from the EHS website at https://ehs.unc.edu/lab/signs/	azards.
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	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
 AGENTS ADMINISTERED Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriated appropredicted appropriated appropriated appropriated appropredicte	riately) 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	N/A
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 Inspectors were informed that surgeries are not performed and that the isoflurane is used solely to restrain animals. If surgeries will be performed in the future, it is necessary to document that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex). A sample template is provided here:	Acceptable
https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf	
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
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



I: Inspect Inspect Inspect Inspect	ion Date: 04/18/201 ors
ispection ID 11937	
nspection Type Semiannual ab Coordinators	
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.	, , ,
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	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: <u>https://research.unc.edu/iacuc/</u>	
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
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
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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) Please ensure secondary containers for Betadine are labeled with the expiration date from the stock container.	No Deficiency
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
PHYSICAL PLANT	Annandahla
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations	Acceptable
Location minimizes traffic/contamination (survival surgery)	Accontobio
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
	,
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable

Report Date: 04/32/2019

IACUC	Inspections	Details	Report
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Report Date: 04/22/2019

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 PID	Inspection Date: 04/03/2019 Inspectors
ispection ID 11949 Ispection Type Semiannual ab Coordinators	IACÚC Vet IACUC
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with the PI during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Han annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	Acceptable Idler form
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 r ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	regularly to
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 long	ger 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 pos IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/lacuc/	ted to the main
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy l	e lab, that they by the lab.
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal researc	h Acceptable
B 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	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
I 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 Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable 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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appr	ropriately) 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	·
PHYSICAL PLANT	,
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
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 according to the Guide	otherwise) N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
3. 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

9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	61/ 5
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 PID Inspe	ection Date: 04/11/201 ectors
Inspection ID 11951 Inspection Type Semiannual	
Lab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted 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 b completed only once, while the DCM orientation must be renewed every 3 years.	Acceptable e
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. Red 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 n IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	nain
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 the 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.	ney
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?	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	e) N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
	1977
8. SURGICAL PROCEDURES: Anesthesia Adequate records of apesthesia and preoperative care	N/A
Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical apesthesia (too pinch documented?)	N/A N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (surgival surgery)	
Procedures for administering and monitoring analgesia (survival surgery) Obtained by Rise for Animals	N/A Uploaded 07/05/2

IACUC	Inspections	Details	Report
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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

계: PI PID	Inspection Date: 04/11/2019 Inspectors
nspection ID 11953	maperiora
ab Coordinators	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted	Acceptable
Inspectors spoke with , a member of the lab, during the inspection.	Moophanic
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspu- be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprise issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	
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 IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable
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 la	
are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by t All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer unless USDA or DoD/VA	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
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
Narning 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
ANIMAL CARE	(toocprassic
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 Means to track animal usage/Euthanasia log	Acceptable
	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked approp	• •
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 Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the appro- application. Please ensure that each administration of post-operative analgesia associated with the protocol is documented.	No Deficiency oved
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
SURGICAL PROCEDURES: General Considerations	
_ocation minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or oth according to the Guide	nerwise) Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Adequate records of anesthesia and preoperative care	6
	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery)	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



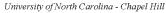
김: 인 PID nspection ID 11954	Inspection Inspectors	n Date: 04/10/20 s
nspection Type Semiannual		
ab Coordinators		
I. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted		Acceptable
Inspectors spoke with the PI and the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animal should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation multiple renewed every 3 years.	als in the lab	nenero o presa orro
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 regu ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification.	ilarly to	
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 unless USDA or DoD/VA	req'd /	Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	to the main	
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/		
https://esearch.unc.edu//acuc/poncies-procedules/		
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lat are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by t		
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	1	Acceptable
L HEALTH AND SAFETY		· · · ·
Gas cylinders immobilized; Eyewash check documented/dust caps in place Please ensure that you add monthly documentation for eyewash flush for the new MEJ spaces.	1	No Deficiency
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	1	Acceptable
Proper sharps disposal, hazardous waste disposal	1	Acceptable
Current copy of Needle Safety in Animal Studies posted	1	Acceptable
Proper carcass disposal (especially hazard contaminated)	1	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	1	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) An editable PDF can be found on the "Room Use" page of the lab's online EH&S lab safety plan. Please update information and signage for new MI	EJ space.	No Deficiency
Cage side chemical hazard identification training	1	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Į	Acceptable
. ANIMAL CARE		
Report animal health issues to Division of Comparative Medicine	1	Acceptable
Clinical records for individual animals (covered species)	I	N/A
Analgesia/anesthesia use as described in approved ACAP	1	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	į	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) AGENTS ADMINISTERED		N/A
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropri-	riately)	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?		V/A
Proper Controlled Substance Storage and Records; double lock		V/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention Inspectors suggested adding SID or BID to templates to more easily distinguish between requirements/approvals for each type of drug regimen us		No Deficiency
iab. PHYSICAL PLANT		
Impervious surfaces	;	Acceptable
General deanliness		Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning		Acceptable
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 oth according to the Guide		Acceptable

Obtained by Rise for Animals. Uploaded 07/05/2020

IACUC Inspections Details Report

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

	Inspection Date: 04/15/2019 Inspectors
nspection ID 11960	*********
nspection Type Semiannual	
ab Coordinators	
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 the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orien be renewed every 3 years.	animals in tation must
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 re ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	gularly to
L 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 poster IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	Acceptable ed to the main
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no long unless USDA or DoD/VA	er req'd Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	n Acceptable
3. HEALTH AND SAFETY	A
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) Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) Cage side chemical hazard identification training	Acceptable N/A
•	
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
4. ANIMAL CARE	Agentable
Report animal health issues to Division of Comparative Medicine	Acceptable N/A
Clinical records for individual animals (covered species) 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 appro	, .
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
3. PHYSICAL PLANT	A second state
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	A
Location minimizes traffic/contamination (survival surgery)	Acceptable Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or o according to the Guide	
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
λ is a new manifold for denth of automation anothering (tab minch desumanted)	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	a a s s s
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable nimals. Up föäded 07/05 /





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) Inspectors discussed with the LAC, that instruments used in survival surgeries should initially be sterilized via autoclaving. A hot bead sterilizer should be used to sterilize instrument tips between animals not as the main source of sterilization.	No Deficiency
https://research.unc.edu/files/2012/11/Guidelines-for-Aseptic-Technique-for-Rodent-Survival-Surgeries.pdf	
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

m.		
PI: PI PID	3	nspection Date: 04/16/201 Inspectors
Inspection ID	88	ispectors
Inspection Type		
Lab Coordinators		
	RY OF WORK CONDUCTED IN THE LABORATORY	
	cted escorted inside the BSL3 spaces by for this inspection. The next inspection, in 3 months, will be reco ffice and lab space. October inspection will again be hot side BSL3.	Acceptable rds
2 DOCUMENTAT	IONS and POSTINGS	
Emergency, weel	kend, and holiday contact information visibly posted in animal housing area	Acceptable
	Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
unless USDA or I The IACUC creates	s, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to	i v
All IACUC guidanc	nder 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u> e documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page:	
Please ensure that	ic.edu/iacuc/policies-procedures/ your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, t	
-	egular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the	
Approved applica 3 HEALTH AND S	tions and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
	nobilized; Eyewash check documented/dust caps in place	N/A
·	sing/scavenging volatile anesthetics; check for Fair can weight	Acceptable
	sposal, hazardous waste disposal	Acceptable
, ,	leedle Safety in Animal Studies posted	Acceptable
.,	isposal (especially hazard contaminated)	Acceptable
Animal handlers r	registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Warning signs vis	sible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemic	cal hazard identification training	Acceptable
Review of chemic	cal hazard forms by laboratory personnel before initial use	Acceptable
ANIMAL CARE		
Report animal he	alth issues to Division of Comparative Medicine	Acceptable
Clinical records for	or individual animals (covered species)	N/A
	esia use as described in approved ACAP	Acceptable
,	rmed as described in approved ACAP; tools sharp/adequate	Acceptable
	nimal usage/Euthanasia log	Acceptable
	OCUMENTATION (weight, drugs, post op care, etc)	Acceptable
,	ion (max P10, 2 toes, approved in ACAP)	Acceptable
AGENTS ADMI		tely) Acceptable
	for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropria or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable Acceptable
	(Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
	t Substance Storage and Records; double lock	N/A
	tained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable
PHYSICAL PLA	· · ·	
Impervious surfac		Acceptable
General cleanline		Acceptable
Behavior studies:	condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
SURGICAL PRO	DCEDURES: General Considerations	
	es traffic/contamination (survival surgery)	N/A
according to the		
	smooth and impervious to moisture	N/A
Fixed equipment		N/A
	DCEDURES: Anesthesia	
	s of anesthesia and preoperative care	N/A
	g for depth of surgical anesthesia (toe pinch documented?)	N/A
	dministering and monitoring analgesia (survival surgery)	N/A
roper anesthetic	cs, 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, emiration data visible) for Animals. Uproaded 07/05/2020



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
3	



PI: Inspection Inspect	on Date: 04/26/2019
Inspection ID 11965	10
Inspection Type Semiannual	
Lab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	N/A
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. Red check marks indicate the person is due for recertification.	
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 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: <u>https://research.unc.edu/iacuc/</u>	Acceptable
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 New Chemical Waste Labeling: Just a reminder that on March 1st, 2016 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.	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 6. PHYSICAL PLANT	Acceptable
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
/ SURGICAL PROCEDURES General Considerations	
7. SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery)	Acceptable
 SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) 	Acceptable Acceptable

IACUC Inspections Details Report

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
Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc)	N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU	N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually)	N/A N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness)	N/A N/A N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained	N/A N/A N/A N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted	N/A N/A N/A N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11 AQUATIC FACILITIES	N/A N/A N/A N/A N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11 AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A N/A N/A N/A N/A N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11 AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A N/A N/A N/A N/A N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11 AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded Equipment properly sanitized, separation based on health status	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11 AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded Equipment properly sanitized, separation based on health status Tank allows for undisturbed observation, enrichment present	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A

	Inspection Date: 04/04/2019 Inspectors
nspection ID 11975	IACUC Vet
nspection Type Semiannual ab Coordinators	IACUC
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with, the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to an lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DLAM orientatic 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 regions are all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for recertification. DOCUMENTATIONS and POSTINGS	ularly to
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	,
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	
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 la are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research HEALTH AND SAFETY	Acceptable
	Associable
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
Narning 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
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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked approp	• / (
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
PHYSICAL PLANT	* * * * *
mpervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
SURGICAL PROCEDURES: General Considerations	A
.ocation minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or oth according to the Guide	herwise) Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
SURGICAL PROCEDURES: Anesthesia	z sonere prise for the
Adequate records of anesthesia and preoperative care	Acceptable
nangana i aani aa assaati aana ana piraapai data adaa	
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	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

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PI PID Inspection Insp	on Date: 05/08/20* ers
nspection ID 11977	
nspection Type Semiannual .ab Coordinators	
I, BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	<u>A a a a a b a b l a</u>
Summary Conducted 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/lacuc/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.	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: <u>https://research.unc.edu/iacuc/</u>	Acceptable
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
I. HEALTH AND SAFETY	Arnonishia
Gas cylinders immobilized; Eyewash check documented/dust caps in place Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight Proper sharps disposal, hazardous waste disposal	Acceptable 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
	<i>,</i>
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable N/A
Cage side chemical hazard identification training Review of chemical hazard forme by laboratery percented before initial use	
Review of chemical hazard forms by laboratory personnel before initial use ANIMAL CARE	Acceptable
	A aaantahia
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
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
	N/A
Proper Controlled Substance Storage and Records; double lock	
Proper Controlled Substance Storage and Records; double lock	No Deficiency
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention Laboratories are required to document all anesthesics, analgesics, and euthanasia agents administered to research animals according to the approved	No Deficiency
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention 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 vaporizers utilized within a Core area) must be available to IACUC personnel. A suggested template can be found here: https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf	No Deficiency
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention 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 vaporizers utilized within a Core area) must be available to IACUC personnel. A suggested template can be found here: https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf PHYSICAL PLANT	
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Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention 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 vaporizers utilized within a Core area) must be available to IACUC personnel. A suggested template can be found here: https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf PHYSICAL PLANT	Acceptable Acceptable
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Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention 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 vaporizers utilized within a Core area) must be available to IACUC personnel. A suggested template can be found here: https://research.unc.edu/files/2012/11/isoflurane-Vaporizer-Monitoring-Log-Template.pdf PHYSICAL PLANT Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations	Acceptable Acceptable
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention 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 vaporizers utilized within a Core area) must be available to IACUC personnel. A suggested template can be found here: https://research.unc.edu/files/2012/11/isoflurane-Vaporizer-Monitoring-Log-Template.pdf PHYSICAL PLANT Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations	Acceptable Acceptable
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention 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 vaporizers utilized within a Core area) must be available to IACUC personnel. A suggested template can be found here: https://research.unc.edu/files/2012/11/isoflurane-Vaporizer-Monitoring-Log-Template.pdf PHYSICAL PLANT Impervious surfaces General cleanliness	Acceptable Acceptable N/A
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention 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 vaporizers utilized within a Core area) must be available to IACUC personnel. A suggested template can be found here: https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf PHYSICAL PLANT Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES. General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	Acceptable Acceptable N/A N/A
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention 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 vaporizers utilized within a Core area) must be available to IACUC personnel. A suggested template can be found here: https://research.unc.edu/files/2012/11/isoflurane-Vaporizer-Monitoring-Log-Template.pdf PHYSICAL PLANT Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise)	Acceptable Acceptable N/A N/A N/A

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Report Date: 05/08/2019

IACUC Inspections	Details Report
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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

	nspection Date: 05/15/2019
Inspection ID 11993	,
Inspection Type Semiannual	
Lab Coordinators	
I. 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 insp be shared with all animal handlers in the laboratory. Please ensure that all members of the laboratory involved with animal care or use are apprise issues, updated policies & procedures, upcoming events, etc. We thank you for your time.	ection, will
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 poster IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable t to the main
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 la are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longe unless USDA or DoD/VA	
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 Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable 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
AGENTS ADMINISTERED	nuocpiano
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked approp	priately) 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
EPHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
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 of according to the Guide	, i
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
I. 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) Laboratories are required to document all anesthetics, analgesics, and euthanasia agents administered to research animals according to the application. Logs documenting use of isoflurane vaporizer must be available to IACUC personnel.	Acceptable oved
Template can be found here: https://research.unc.edu/files/2012/11/Isoflurane-Vaporizer-Monitoring-Log-Template.pdf Obtained by Rise for Ar	imals. Uploaded 07/05/20

Report Date: 05/15/2019

	עידר
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

	ection Date: 05/13/2019 ectors	
Inspection ID 11994 Inspection Type Semiannual Lab Coordinators		
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Based on conversation with i 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 to an Informational Inspection schedule instead. This informational Inspection fulfills the institutional goal that we visit each lab performing any animal we at least every two years. If you should need any assistance from the IACUC or Offices 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/lacuc/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.	ork	
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 r IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable nain	
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 t 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.	hey	
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	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)		
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable 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	Assessed	
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	<i>.</i>	
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?) The laboratory must maintain documentation for all anesthetized animals indicating that the animal reached a surgical plane of anesthesia prior to the sta the procedure (i.e. lack of toe pinch reflex). Please add this to your current documentation.	No Deficiency rt of	
Procedures for administering and monitoring analgesia (survival surgery) Obtained by Rise for Animals	N/A s. Uploaded 07/05/20	

Obtained by Rise for Animals. Uploaded 07/05/2020



IACUC	Inspections	Details	Report
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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



	pection Date: 05/21/2019 pectors
Lab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with i the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must 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 t ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	0
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 IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/lacuc/</u>	Acceptable
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 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	they
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'ounless USDA or DoD/VA	d Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research 3. HEALTH AND SAFETY	Acceptable
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) 5. AGENTS ADMINISTERED	N/A
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriate)	y) 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 otherwis according to the Guide	
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

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 PID Insp Inspection ID 11998	ection Date: 05/21/2019 ectors
Inspection Type Semiannual Lab Coordinators	
1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must b 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. Red 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 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 IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable Acceptable nain
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 t 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.	hey
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 3. HEALTH AND SAFETY	Acceptable
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
Proceedings exist for ensuring drugs and biological are within expiration date (expired drugs separated of marked appropriately Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)) Acceptable 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	Anganiahis
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	A and the block
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwis according to the Guide	
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) Obtained by Rise for Animal	s. Uploaded 07/05/20

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

· ·	ection Date: 05// ectors	21/2019
nspection ID 12008		
spection Type Semiannual		
ab Coordinators reficiency Count: 0 Inspe	untian Pammantes 1	
	ection Comments: 1	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted	Acceptable	
This inspection was combined with the Dayton inspection in May 2019, as LAC, spaces and logs are shared.	мосеріаліе	
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 longe unless USDA or DoD/VA	er req'd Acceptable	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research 3. HEALTH AND SAFETY	Acceptable	
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	
I 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	
AGENTS ADMINISTERED	uninkaka) Annankakia	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appro	, ,	
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable N/A	
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? 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	
Properiogs maintaineu for agents useu to auminister anestnesia, analgesia and for eumanasia and acute intervention	Ассертале	
Impervious surfaces	Acceptable	
General cleanliness	Acceptable	
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A	
/ 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 of according to the Guide		
Interior surfaces smooth and impervious to moisture	N/A	
Fixed equipment is sanitizable	N/A	
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	
 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	

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12096

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 interu	ption to supply N/A
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from pop	ulation) N/A
HVAC adequate and non-recirculating (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquired new animals? Source? Permits on fi	e? 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: 05/13/2019 Inspectors
nspection ID 12010 nspection Type Semiannual	
Lab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	No Deficiency
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	No Deficiency
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no long unless USDA or DoD/VA	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal researc 3. HEALTH AND SAFETY	h No Deficiency
Gas cylinders immobilized; Eyewash check documented/dust caps in place	No Deficiency
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	No Deficiency
Proper sharps disposal, hazardous waste disposal	No Deficiency
Current copy of Needle Safety in Animal Studies posted	No Deficiency
Proper carcass disposal (especially hazard contaminated)	No Deficiency
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	No Deficiency
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	No Deficiency
4. ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	No Deficiency
Clinical records for individual animals (covered species)	N/A
Analgesia/anesthesia use as described in approved ACAP	No Deficiency
Euthanasia performed as described in approved ACAP; tools sharp/adequate	No Deficiency
Means to track animal usage/Euthanasia log	No Deficiency
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	No Deficiency
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	No Deficiency
5. AGENTS ADMINISTERED	•
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appr	opriately) No Deficiency
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	No Deficiency
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	No Deficiency
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	No Deficiency
6 PHYSICAL PLANT	
Impervious surfaces	No Deficiency
General cleanliness	No Deficiency
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)	No Deficiency
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or according to the Guide	otherwise) No Deficiency
Interior surfaces smooth and impervious to moisture	No Deficiency
Fixed equipment is sanitizable	No Deficiency
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)	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	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

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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

	pection Date: 06/19/201 pectors
Inspection ID 12019	Jectors
nspection Type Semiannual	
ab Coordinators	
Peficiency Count: 0	pection Comments: 3
. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with the Principal Investigator (PI), during the inspection. All animal handlers and others exposed to animal should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation 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 r ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	egularly to
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 post IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	Acceptable ted to the main
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy t	by the lab.
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no long unless USDA or DoD/VA Annual conducting animal records and annual sector and annual sectors annual sectors and annual sectors annual sectors and annual sectors and annual sectors annual sectors annual sectors annual sectors annual sectors and annual sectors annual secto	u ,
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal researc HEALTH AND SAFETY	h Acceptable
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.	No 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	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
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 MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable N/A
AGENTS ADMINISTERED	IWA
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appr	opriately) 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	
PHYSICAL PLANT	,
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
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 according to the Guide	otherwise) Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable Animals. Uploaded 07/05/

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Report Date: 06/19/2019

Acceptable Acceptable Acceptable Acceptable Acceptable N/A N/A Acceptable Acceptable Acceptable
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Acceptable
N/A
N/A

	Inspection Date:	06/27/2019
PI PID I Inspection ID 12024	nspectors	
Inspection Type Semiannual		
Lab Coordinators		
Deficiency Count: 0	nspection Comments	: 3
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others expose lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM or renewed every 3 years.	sed to animals in the	eptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ACAP regularly to	
2. DOCUMENTATIONS and POSTINGS		
Emergency, weekend, and holiday contact information visibly posted in animal housing area		eptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers pos		eptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches n 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 a IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/lacuc/</u>		eptable
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 printe 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 re	search Aco	eptable
3. HEALTH AND SAFETY		
Gas cylinders immobilized; Eyewash check documented/dust caps in place		eptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight		eptable
Proper sharps disposal, hazardous waste disposal		eptable
Current copy of Needle Safety in Animal Studies posted		eptable
Proper carcass disposal (especially hazard contaminated)		eptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119		eptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)		eptable
Cage side chemical hazard identification training		eptable
Review of chemical hazard forms by laboratory personnel before initial use	Aco	eptable
4. ANIMAL CARE	A	
Report animal health issues to Division of Comparative Medicine		eptable
Clinical records for individual animals (covered species)	N/A	
Analgesia/anesthesia use as described in approved ACAP		eptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate		eptable
Means to track animal usage/Euthanasia log		eptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)		eptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Aco	eptable
5. AGENTS ADMINISTERED		
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked	•••••	eptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)		eptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Stand		awénhia
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute interve		eptable
	shuon Aco	eptable
6. PHYSICAL PLANT Impervious surfaces	λ	ontabla
General cleanliness		eptable entable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning		eptable eptable
5 SURGICAL PROCEDURES. General Considerations	AUU	ohiania
	ble I	Deficiency
Location minimizes traffic/contamination (survival surgery) Please update the protocol with the new lab location immediately. You may do this easiest by emailing <u>lacuc@med.unc.edu</u> with a reque location. Please include room numbers and sections of the protocol to be updated, including section 3.2, and surgery sections, if applications are updated including sections.	est to update the able.	Deficiency
Functional components (animal preparation, operating room, post-op recovery designed and separated (physical according to the Guide	lly or otherwise) Acco	eptable
Interior surfaces smooth and impervious to moisture	Acc	eptable
Fixed equipment is sanitizable	Aco	eptable
8. SURGICAL PROCEDURES: Anesthesia		
Adequate records of anesthesia and preoperative care	Acc	eptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Aco	eptable

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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		21/2019
nspection ID 12025	Inspectors	
spection Type Semiannual		
ab Coordinators		
Peficiency Count: 0	Inspection Comments: 1	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others expo- lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM or 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 A ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	CAP regularly to	
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 post	,	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no unless USDA or DoD/VA		
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal re-	search Acceptable	
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 Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable Acceptable	
Cage side chemical hazard identification training	Acceptable	
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable	
ANIMAL CARE	nacpan	
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	
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 Standa	ard? 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 interve	ntion Acceptable	
. PHYSICAL PLANT		
Impervious surfaces	Acceptable	
General cleanliness	Acceptable	
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A	
SURGICAL PROCEDURES: General Considerations		
Location minimizes traffic/contamination (survival surgery)	N/A	
Functional components (animal preparation, operating room, post-op recovery designed and separated (physical according to the Guide		
Interior surfaces smooth and impervious to moisture	N/A	
Fixed equipment is sanitizable	N/A	
. 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 A anaméntia	
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable	
BURGICAL 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	

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IACUC Inspections Details Report

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	: 06/26/2019
PI PID Inspectors	
Inspection ID 12026	
Inspection Type Semiannual	
Lab Coordinators	
Deficiency Count: 0 Inspection Com	ments: 6
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
Inspectors spoke with	
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. Red check marks indicate the person is due for recertification.	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all applicable protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal activity in these spaces.	
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 reg'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: <u>https://research.unc.edu/iacuc/</u>	3
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.	
As discussed, the LAC may train and certify lab members in techniques for which she has a Proficiency rating of 1. Please reference the following link for instructions on certifying personnel: http://research.unc.edu/files/2012/11/CCM1_030728.pdf	
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	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	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	Acceptable
о — — — — — — — — — — — — — — — — — — —	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	,
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	A
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) The PI is approved to use non-pharmaceutical grade pentobarbital. At the time of the inspection, the LAC indicated that Fatal Plus is now being used for the non-survival perfusion procedures. OLAW permits the use of Fatal Plus when it is used for euthanasia or for terminal procedures such as perfusion or exsanguination only. Please update your protocol to include this additional agent so that all agents used for non-survival (terminal) procedures are included in the protocol.	No Deficiency
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
A Morris water maze is used in the Kerr Hall facility and is inspected during the Kerr Hall inspection.	
A Morris water maze is used in the Kerr Hall facility and is inspected during the Kerr Hall inspection. 7. SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Obtained by Rise for Animals.	

IACUC Inspections E	Details Report	
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Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwis according to the Guide	e) 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) The inspectors did not discuss the survival surgical procedures which are conducted in the Kerr Hall DCM procedural area.	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 The inspectors did not discuss the survival surgical procedures which are conducted in the Kerr Hall DCM procedural area.	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
veterinary contact into visably posted	
11. AQUATIC FACILITIES	
	N/A
11 AQUATIC FACILITIES	N/A N/A
11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing	
11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
11 AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded	N/A N/A
11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded Equipment properly sanitized, separation based on health status	N/A N/A N/A

n: PI PID	Inspection Date: 06/04/2019 Inspectors
nspection ID 12027	
nspection Type Semiannual ab Coordinators	
. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted	Acceptable
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 post IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable ted to the main
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy l	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no long unless USDA or DoD/VA	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal researc	h Acceptable
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
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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appr	
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	I Acceptable
PHYSICAL PLANT	Associable
Impervious surfaces	Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable Acceptable
Senavior studies, condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or according to the Guide	•
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
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 pla 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
SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	,
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
	Animals. Upfoaded 07/05/2

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

	ction Date: 06/04/2019 ctors
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 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 IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/lacuc/</u>	Acceptable e main
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, the are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the la	b.
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req unless USDA or DoD/VA	,
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research 3. HEALTH AND SAFETY	Acceptable
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
LANIMAL 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
3. AGENTS ADMINISTERED	10.0
	www.accostable
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriate	
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
) PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
/ 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 otherw according to the Guide	ise) Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
3 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	•
9 SUNDICAL FINOULDUNES ASEMIC TECHNIQUE ICI SUNNIAI FICCEULIES	
	Acceptable
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable Acceptable

Obtained by Rise for Animals. Uploaded 07/05/2020

IACUC Inspections Details Repo	317
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	1202
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

101100 Inc.	nspection Date: 06/21/2019
I PID In Inspection ID 12029	spectors
spection Type Semiannual	
ab Coordinators	
eficiency Count: 0 In	spection Comments: 1
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
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 p IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable posted to the main
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard cop	the lab, that they
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no lo unless USDA or DoD/VA	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal resea	arch Acceptable
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
Narning 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
ANIMAL CARE) (000)/00/0
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
AGENTS ADMINISTERED	· · · · · · · · · · · · · · · · · · ·
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked ap	, .
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Fribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard	
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 interventi	ion N/A
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
SURGICAL PROCEDURES: General Considerations	
_ocation minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically o according to the Guide	or otherwise) Acceptable
nterior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
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
SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
N	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

	Inspection Date: 06/21/201
PI PID nspection ID 12031	Inspectors
nspection Type Semiannual	
ab Coordinators	
Deficiency Count: 0	Inspection Comments: 1
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 poste The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	d Acceptable posted to the main
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard c	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no unless USDA or DoD/VA	longer req'd Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal rese	earch 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	å saante bla
Report animal health issues to Division of Comparative Medicine Clinical records for individual animals (covered species)	Acceptable 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 a	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 Standa	
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 interver	
5. 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 according to the Guide	or otherwise) Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
3 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
	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained) 9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	wwebianie

Report Date: 06/21/2019

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

	nspection Date: 06/05/201 nspectors
spection Type Semiannual	
ab Coordinators	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
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 IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	Acceptable the main
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,	
are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer re unless USDA or DoD/VA	eq'd Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
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
ANIMAL CARE	roovprotorio
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
AGENTS ADMINISTERED	tata) Association
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropria	• •
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
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
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 other according to the Guide	wise) Acceptable
nterior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
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
SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	·
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
	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

Report Date: 06/05/2019

Pl: Inspection Date	e: 06/27/201
1 PID Inspectors	
nspection Type Semiannual	
ab Coordinators	
Deficiency Count: 0 Inspection Com	ments: 4
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.	3
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. Red 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
I. 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 Please ensure that the approved analgesic is utilized intra-operatively (i.e. bupivicaine, lidocaine) as described in the protocol.	No Deficiency
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
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 Overall, controlled substance records are vastly improved from previous inspections with this laboratory. Inspectors commend the current LAC for working to gain compliance within the lab.	No Deficiency
However, two serious issues were noted, that are likely attributed to a specific person or persons: Dilute controlled drug was stored outside of the approved locked location, unlabeled, at least overnight. Some dilute controlled drug use is not adequately documented consistently. According to DEA/DHHS, once controlled substances are removed from the stock bottle, the bottle balance must be maintained. In addition, a second log, documenting the use/balance of the dilute solution must be maintained.	
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
. 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
3. SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	No Deficiency

Obtained by Rise for Animals. Uptoaded 07/05/2020

Report Date: 07/01/2019 12035

ocedures for administering and monitoring analgesia (survival surgery)	Acceptable
oper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
URGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
odent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
toclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
se of effective aseptic procedures for survival surgery	Acceptable
old Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A
e of sterile gloves and drapes	Acceptable
eparation of sterile incision site and surrounding area	Acceptable
erile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
oper recovery monitoring	Acceptable
ecords of postoperative care including analgesia agents (all species)	N/A
SATELLITE FACILITIES	
ally feed/water/observation-records maintained	N/A
nimal identification posted (PI, ACAP ID #, species, source)	N/A
nanges in environment since last inspection (noise, illumination, vibration, etc)	N/A
saster plan in place, annual review, updates since last provided to OACU	N/A
ood stored in sealed container with date of expiration/milling/plan for interuption to supply	N/A
ealth/mortality records/reports to Vet Svcs (i.e. multiple, removed from population)	N/A
/AC adequate and non-recirculating (suggest monitoring annually)	N/A
aintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A
est control (frequency, effectiveness)	N/A
initation schedule (daily/weekly/monthly/annually) maintained	N/A
eterinary contact info visably posted	N/A
AQUATIC FACILITIES	
norine/chloramine/chemicals removed or neutralized, water quality testing	N/A
trate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A
mperature/humidity values recorded	N/A
uipment properly sanitized, separation based on health status	N/A
ink allows for undisturbed observation, enrichment present	N/A
ersonnel trained in H2O quality, animal health monitoring	N/A



	Inspection Date:	06/19/2019
PI PID Inspection ID 12036	Inspectors	
Inspection Type Semiannual		
Lab Coordinators		
Deficiency Count: 0	Inspection Comme	nts: 3
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is completed only once, while the DCM orientation must be renewed every 3 years.		ceptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in A ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	CAP regularly to	
2. DOCUMENTATIONS and POSTINGS		
Emergency, weekend, and holiday contact information visibly posted in animal housing area		ceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers post		ceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches nu 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 a		ceptable
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard		
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal re-	search Ao	ceptable
3. HEALTH AND SAFETY		
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Aa	ceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Ac	ceptable
Proper sharps disposal, hazardous waste disposal	Ao	ceptable
Current copy of Needle Safety in Animal Studies posted	Aa	ceptable
Proper carcass disposal (especially hazard contaminated)	Ac	ceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Ao	ceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Aa	ceptable
Cage side chemical hazard identification training	N//	4
Review of chemical hazard forms by laboratory personnel before initial use	Ao	ceptable
4. ANIMAL CARE		
Report animal health issues to Division of Comparative Medicine	Ac	ceptable
Clinical records for individual animals (covered species)	N/#	4
Analgesia/anesthesia use as described in approved ACAP	Aa	ceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Ac	ceptable
Means to track animal usage/Euthanasia log	Ao	ceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)		ceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/#	4
5 AGENTS ADMINISTERED		
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked		ceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)		ceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Stand		
Proper Controlled Substance Storage and Records; double lock	N//	
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute interve	ntion Ac	ceptable
6. PHYSICAL PLANT		
Impervious surfaces		ceptable
General cleanliness		ceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Αο	ceptable
		aantahin
7. SURGICAL PROCEDURES: General Considerations	*	ceptable
Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physical		ceptable
Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physical according to the Guide	ly or otherwise) Ac	ceptable
Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physical according to the Guide Interior surfaces smooth and impervious to moisture	ly or otherwise) Ac	ceptable ceptable
Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physical according to the Guide	ly or otherwise) Ac	ceptable

IACUC Inspections Details Report

Proper monitoring for depth of surgical anesthesia (toe pinch documented?) The laboratory must maintain documentation for all anesthetized animals indicating that the animal reached a surgical plane of anesthesia prior to the start o the procedure (i.e. lack of toe pinch reflex). Please ensure that toe-pinch is documented consistently across all non-survival surgery records- including perfusions.	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	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 Date:	07/17/2019
Inspection ID 12048	Inspectors	
Inspection Type Semiannual		IACUĊ IACUC Vet
Lab Coordinators Deficiency Count: 0	Inspection Comme	
	mapeedon comme	558.J. U
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted		Acceptable
2. DOCUMENTATIONS and POSTINGS		мссеріаціе
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	s posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Search unless USDA or DoD/VA	•	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting anim 3. HEALTH AND SAFETY	al research	Acceptable
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) Inspectors noted missing warning sign located at the entrance to TB 6027. An editable PDF can be found on the "Room Use" page safety plan, please update information and replace old signage.	e of the lab's online lab	No Deficiency
Cage side chemical hazard identification training		N/A
Review of chemical hazard forms by laboratory personnel before initial use Inspectors found containers containing tissues in formalin, without a chemical name. The EHS Laboratory Safety Manual (3-6) stat spell out the name of the chemical on the label any time you transfer substances from original containers to secondary containers synthesizing/mixing new substances, if the substances are not for the immediate use of the handler or preparer."		No Deficiency
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) 5. AGENTS ADMINISTERED		N/A
	arkad appropriately)	Accontration
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or ma Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	aikeu appropriately)	Acceptable Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of S	Standard?	N/A
Proper Controlled Substance Storage and Records; double lock	561166763	N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute in	tenrention	Acceptable
6. PHYSICAL PLANT	nervention	7 cooptable
Impervious surfaces		Acceptable
General cleanliness		No Deficiency
A hood in this space is due for recertification. If not in use please place a not in use sign on the hood. If still in use please recertify		*
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	g	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 (phy according to the Guide	ysically or otherwise)	Acceptable
Interior surfaces smooth and impervious to moisture		Acceptable
Fixed equipment is sanitizable		Acceptable
B SURGICAL PROCEDURES: Anesthesia		Annatahia
Adequate records of anesthesia and preoperative care		Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (surgical surgent)		Acceptable Acceptable
Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained)		Acceptable
9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures		wwahignig
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure		N/A
	(م	N/A
- Autoclave Sterilization procedures are annonriate (en: storage use of autoclave tage evolution date visible		N NJ 2 N
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visibl Use of effective aseptic procedures for survival surgery	-)	N/A

Report Date: 07/17/2019

	12040
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
l	

'I PID Ins	spection Date: 07/17/20 spectors
nspection ID 12051 nspection Type Semiannual ab Coordinators	
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	Acceptable
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 a 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 knowled and able to describe survival Brain Cannula as described in protocol #17-206 without the use of a live animal. The inspectors did not find any deficienci 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 The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to th IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable e main
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/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, the 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	b.
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req unless USDA or DoD/VA Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to a 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.	nimals
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 ensure all animal handlers are up to date on all three certifications. Yellow check marks indicate the person is due for re-certification.	r to
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
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
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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriate	ely) 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
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	Acceptable
	ise) Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherw	
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherw according to the Guide Interior surfaces smooth and impervious to moisture	Acceptable



IACUC Inspections Details Report

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
	N/A
Tank allows for undisturbed observation, enrichment present	18/73
Tank allows for undisturbed observation, enrichment present Personnel trained in H2O quality, animal health monitoring	N/A

PD Inspectors Pector ID 1:0562 Pector ID 1:0562 Sector Type Semiannal Coordinations Inspection Comm REFE SUMMARY OF WORK COONDUCTED IN THE LABORATORY Inspection Comm Ummany Conducted Inspection Sectors Inspection Comm Timpectors spectrum Annotation Coordinator (LAC), which the Inspector and sectors and others exposed to animals in the Inspector and sectors Inspection Sectors Documentations are one only sectial as new and contensing proceeds are submitted so Pla and/or LACs must head the Excended sectors Inspector Sectors Documentations are one only sectial as new and contensing proceeds are submitted so Pla and/or LACs must head the Excended sectors Inspector ID Documentation and animation relation visibly posted in animal housing area Interform one only of Reporting an Animal Concern. COZ Euthanasia Policy and Emergency. Weekeed and the Instrumentation visibly posted in animal housing area Interform one only of Reporting an Animal Concern. COZ Euthanasia on a monthy basis. As thesid documents are approved applications and amendments available to and reviewed by latoratory personnal? The IACOC weekes, and try are aborded the instrumentation visibly posted in animal housing area (animal housis)) Visitre	08/28/2019
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	No Deficiency
acation minimizes traffic/contamination (sun/ival surgan)	
seaton minimizes damo contamination (survival surgery)	Acceptable
unctional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) ccording to the Guide	Acceptable
odent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable

Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
Other	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Other	Acceptable
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	Acceptable
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Other	Acceptable

Report Date: 08/28/2019

	spection Date: 07/31/20 spectors
rspection ID 12053	
spection Type Semiannual	
ab Coordinators eficiency Count: 0 Ins	spection Comments: 2
	spection comments. 2
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	Assantable
Summary Conducted Inspectors spoke with — — — a member of the lab, during the inspection. All animal handlers and others exposed to animals in the lab shou Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed	
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 ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	P regularly to
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 lor unless USDA or DoD/VA	nger req'd Acceptable
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are po IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	osted to the main
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy	y by the lab.
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal resear HEALTH AND SAFETY	rch Acceptable
BEALTH AND SAFETT 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
Varning 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
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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked app	propriately) Acceptable
Pharmaceutical or veterinary grade agents used (Section 11.3 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 interventio	on Acceptable
PHYSICAL PLANT	
mpervious surfaces	Acceptable
General cleanliness	Acceptable
3ehavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
SURGICAL PROCEDURES: General Considerations	-
ocation minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or according to the Guide	
nterior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
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 Animals. Uploaded 07/05/



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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:	07/31/2019
PI PID	Inspectors	
Inspection ID 12054 Inspection Type Semiannual		IACUĆ
Lab Coordinators		
Deficiency Count: 0	Inspection Commer	its: 6
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 othe lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the 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 I ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ab in ACAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.ec protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to t these spaces.		
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 Number		Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searcl unless USDA or DoD/VA	nes no longer req'd	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting anin The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/		Acceptable
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained i		
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 # 966-911	1	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) BSL1 viruses are used and administered to animals in the laboratory.		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) 5. AGENTS ADMINISTERED		N/A
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or magnetic please include expiration dates on the secondary containers for compounded/mixed drugs.	arked appropriately)	No Deficiency
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)		Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of t	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 in	ntervention	Acceptable
6. PHYSICAL PLANT		
Impervious surfaces		Acceptable
General cleanliness		Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleanin	g	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 (ph according to the Guide	ysically or otherwise)	Acceptable
Interior surfaces smooth and impervious to moisture		Acceptable
	ise for Animals. U	ploaded 07/05/2

8. SURGICAL PROCEDURES: Anesthesia	
	Acceptable
Adequate records of anesthesia and preoperative care	
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	A
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) Autoclave safety - Environment Health and Safety has a webpage (https://ehs.unc.edu/biological/autoclave/) with several resources for autoclaves. On that page there is a general SOP that researchers can follow and specific requirements in terms of weekly testing (if used for waste). Also, within Schedule F of the Laboratory Safety Pian (LSP) there is a question regarding how researchers treat biological waste, they have to identify where the autoclave is located and who is performing weekly testing. There is also an online training module that covers Autoclave Safety: https://apps.fo.unc.edu/ehs/training/autoclave-usage-and-safety/.	Acceptable
Use of effective aseptic procedures for survival surgery Please include expiration dates on the surgical prep supplies such as betadine and alcohol.	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	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

	Inspection Date: 07/31	/2019
nspection ID 12055	Inspectors	
nspection Type Semiannual	IACUČ	
ab Coordinators	Sun an a shi a an @ a unan a sha a 7	
	Inspection Comments: 7	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted	Acceptabl	~
Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only one orientation must be renewed every 3 years.	others exposed to	e
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	o in ACAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to fur these spaces.		
2. DOCUMENTATIONS and POSTINGS		
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptabl	
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers p		
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searche unless USDA or DoD/VA		
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, the IACUC webpage under 'important Notices' for approximately six months: https://research.unc.edu/iacuc/		ê
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 pri are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in t		
 HEALTH AND SAFETY Gas cylinders immobilized; Eyewash check documented/dust caps in place The biological safety cabinet within the laboratory appeared to be last certified in 2009. If this cabinet is utilized for biological agents recertification. 	No Deficie s, please ensure a current	ency
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	N/A	
Proper sharps disposal, hazardous waste disposal	Acceptabl	е
Current copy of Needle Safety in Animal Studies posted	Acceptabl	e
Proper carcass disposal (especially hazard contaminated)	Acceptabl	e
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptabl	
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) BSL1 agents (viruses) are administered to animals.	Acceptabl	
Cage side chemical hazard identification training	Acceptabl	
Review of chemical hazard forms by laboratory personnel before initial use	Acceptabl	e
 ANIMAL CARE Report animal health issues to Division of Comparative Medicine 	Acceptabl	~
Clinical records for individual animals (covered species)	N/A	c
Analgesia/anesthesia use as described in approved ACAP	Acceptabl	ద
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptabl	
Means to track animal usage/Euthanasia log	Acceptabl	
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptabl	
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptabl	
S AGENTS ADMINISTERED	,k	~
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or mark	ked appropriately) Acceptabl	e
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Acceptabl	
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Sta	1	
Proper Controlled Substance Storage and Records; double lock	Acceptabl	e
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute inte	,	
S PHYSICAL PLANT	· · ·	
Impervious surfaces	Acceptabl	e
General cleanliness	Acceptabl	e
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning The laboratory is on the DCM schedule for microbiological assessment of hand sanitized equipment.	Acceptabl	e
/ SURGICAL PROCEDURES: General Considerations		
Location minimizes traffic/contamination (survival surgery)	Acceptabl	
Functional components (animal preparation, operating room, post-op recovery designed and separated (physi according to the Guide	- , , ,	
Interior surfaces smooth and impervious to moisture	Acceptabl	
Fixed equipment is sanitizable	e for Animals. Uploaded	⁰ 07/05

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Report Date: 08/01/2019

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) Autoclave safety - Environment Health and Safety has a webpage (https://ehs.unc.edu/biological/autoclave/) with several resources for autoclaves. On that page there is a general SOP that researchers can follow and specific requirements in terms of weekly testing (if used for waste). Also, within Schedule F of the Laboratory Safety Pian (LSP) there is a question regarding how researchers treat biological waste, they have to identify where the autoclave is located and who is performing weekly testing. There is also an online training module that covers Autoclave Safety: https://apps.fo.unc.edu/ehs/training/autoclave-usage-and-safety/.	Acceptable
Use of effective aseptic procedures for survival surgery No touch technique is employed for survival surgical procedures.	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

•	pection Date: 07/30/2	2019
	ectors	
Inspection ID 12058 Inspection Type Semiannual		
Lab Coordinators		
Deficiency Count: 0 Inspe	ection Comments: 3	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted inspectors spoke with the PI and Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others expi in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM of 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 i ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	regularly to	
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 Ion 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 pos 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 th are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy		
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal researc	rch 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 4. ANIMAL CARE	Acceptable	
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 appl	propriately) Acceptable	
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Acceptable	
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	•	
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 Acceptable	
6. PHYSICAL PLANT Impervious surfaces	Acceptable	
General deanliness	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) Please ensure that new spaces are added to the protocol and inspected by IACUC inspectors prior to use with live animals.	No Deficiency	
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or according to the Guide	r otherwise) Acceptable	
Interior surfaces smooth and impervious to moisture	Acceptable	
Fixed equipment is sanitizable	Acceptable	
8. SURGICAL PROCEDURES: Anesthesia	۰. ۱	
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)	Animals. Uploaded 07	

Obtained by Rise for Animals. Uploaded 07/05/2020

Report Date: 07/30/2019

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

김: Inspection D Inspectors Inspectors	ate: 07/12/2019
spection ID 12061	
spection Type Semiannual	
ab Coordinators	
eficiency Count: 0 Inspection Co	omments: 3
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 expo 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.	sed to
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 regularl ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification. DOCUMENTATIONS and POSTINGS	y to
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 re-	,
Air personner narroung animals in the lab trained, Certified and on application, Annual Renewals & Lit Searches no longer re- 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 t 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, th are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the l	ab.
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research Please update the protocol with the new lab location immediately. You may do this easiest by emailing lacuc@med.unc.edu with a request to update the location. Please include room numbers and sections of the protocol to be updated, including section 3.2, and surgery sections, if applicable.	No Deficiency re
I 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
1. 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 appropriat	ely) Acceptable
Pharmaceutical or veterinary grade agents used (Section 11.3 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
5. 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
	vise) Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwaccording to the Guide	
	Acceptable
according to the Guide	Acceptable Acceptable

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IACUC Inspections	Details	Report
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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: 07/30/2019 PI PID Inspection ID 12064 Inspection Type Semiannual Lab Coordinators Semiannual Deficiency Count: 1 Inspector Spoke with [redacted], 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
Inspection ID 12064 Inspection Type Semiannual Lab Coordinators Semiannual Deficiency Count: Inspection Comments: 5 1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted Acceptable Inspectors spoke with [redacted], 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.
Inspection Type Semiannual Lab Coordinators Deficiency Count: 1 Inspection Comments: 5 1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted Inspectors spoke with [redacted], 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.
Deficiency Count: 1 Inspection Comments: 5 1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Acceptable Summary Conducted Inspectors spoke with [redacted], 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.
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted Acceptable Inspectors spoke with [redacted], 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.
Summary Conducted Acceptable Inspectors spoke with [redacted], 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.
Summary Conducted Acceptable Inspectors spoke with [redacted], 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.
Inspectors spoke with [redacted], 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 regulariv to
ensure all animal handlers are up to date on all three certifications. Red 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 Acceptable unless USDA or DoD/VA
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research Acceptable
er N/A
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
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 Acceptable
Review of chemical hazard forms by laboratory personnel before initial use Acceptable Acceptable
er 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 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 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. This includes that secondary container that holds Ketamine/Xylazine. Expiration dates should be assigned based on https://research.unc.edu/files/2013/10/Guidelines-for-Administered-Agents.pdf.
Pharmaceutical or veterinary grade agents used (Section 11.3 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 The lab must be able to account for drugs from receipt to use/waste, including those removed from the stock bottles to create the cocktail bottles. A second log is required with a running balance for use when Ketamine is removed from the stock bottle and added to the saline and Xylazine.
The following comment was made in the Semiannual Inspection Report for your lab during the last inspection, as a comment on 1/9/2018 and as a minor deficiency on 7/24/2018:
Inspectors advised the LAC that anytime a drug is discarded, lost, or a bottle balance reaches zero, two signatures or initials should be provided. 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
The lab must be able to account for drugs from receipt to use/waste, including those removed from the stock bottles to create the cocktail bottles. A second log is required with a running balance for use when Ketamine is removed from the stock bottle and added to the saline and Xylazine.
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 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 As discuss below is a template the lab may use to consolidate documentation for survival surgeries: https://research.unc.edu/files/2017/02/UNC-IACUC-Rodent-Anesthesia-Analgesia-Procedure-Record.pdf	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery) 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. This includes lidocaine pre-operative.	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	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/ Aguired 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	N/A
11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A N/A
11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	
11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded	N/A
11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded Equipment properly sanitized, separation based on health status	N/A N/A N/A
11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded	N/A N/A

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PI: Inspec	tion Date: 08/21/2019
PI PID Inspect	ors
Inspection ID 12081 Inspection Type Semiannual	
Lab Coordinators	
Deficiency Count: 0 Inspect	tion Comments: 5
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted inspectors spoke with the Principal Investigator, during the records review. Only hamster records were reviewed as there had been	Acceptable
Inspectors spoke with the Principal Investigator, during the records review. Only hamster records were reviewed as there had been or mouse work within the last year. All animal experiments are conducted in the DCM Berryhill Hall facilities. Animals are anesthetized for restrain intranasal inoculations or intracheal inoculations via the oral cavity. They are also anesthetized for terminal exsanguination. The protocol contain approved exception for the potential of singly housing hamsters.	nt for
All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now requi completed only once, while the DCM orientation must be renewed every 3 years.	iired to be
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 regi ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ularly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all applic protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal a these spaces.	
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 unless USDA or DoD/VA	r req'd Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	Acceptable I to the main
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/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 la are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the semiannual of the semiannn	
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 Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable N/A
Cage side chemical hazard identification training	Acceptable
Cages of hamsters are flagged with biological hazard cards after inoculation with virus.	мосерката
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) Principal Investigator (PI) maintained documentation for isoflurane induction and recovery time, virus inoculation, and depth of anesthesia monitor reviewed as part of the inspection. The records entered by DCM veterinarians appeared to be complete. However, the entries made by PI personn some detail regarding induction and recovery times as well as toe pinch to assess anesthesia depth. Medical and monitoring records are key elen animal care program and are considered critical for documenting animal well-being as well as tracking animal care and use. Please review your re completeness and ensure that future records are complete.	nel lacked ments of the
The PI-maintained record notebook contained several 'Monthly Principal Investigator Duties to be Peformed' checklists. These checklists should i maintained by DCM personnel within the animal facility in which the animals are housed. Please remove these checklists for the PI record notebo contact your DCM facility supervisor to determine the best way to return the forms to DCM care.	
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) See item 4b above regarding clinical records.	No Deficiency
Toe Clip Discussion (max P10, 2 toes, approved in ACAP) 5. AGENTS ADMINISTERED	N/A
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked approp	priately) 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	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:	08/22/2019
PI PID Inspection ID 12085	Inspectors	
Inspection Type Semiannual Lab Coordinators		
Deficiency Count: 0	Inspection Commer	nts: 3
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the renewed every 3 years.		Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.		
2. DOCUMENTATIONS and POSTINGS		á acontabla
Emergency, weekend, and holiday contact information visibly posted in animal housing area Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers	a neated	Acceptable Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Search unless USDA or DoD/VA	,	N/A
Approved applications and amendments available to and reviewed by laboratory personnel conducting anin The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	nal research , they are posted to the main	Acceptable
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in the second		
3. HEALTH AND SAFETY		
Gas cylinders immobilized; Eyewash check documented/dust caps in place Inspectors noted an eyewash where the protective caps were not covering the eyewash. Please make sure that eyewashes are cle so that debris does not build up and the eyewash can be used in case of emergency.	an and covers are in place	No 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 # 966-911	9	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 m	arked 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 in	ntervention	Acceptable
5. PHYSICAL PLANT		•
Impervious surfaces		Acceptable
General cleanliness		Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleanin	ıg	N/A
SURGICAL PROCEDURES: General Considerations		
Location minimizes traffic/contamination (survival surgery)		N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (ph according to the Guide	vsically or otherwise)	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

Report Date: 08/22/2019
12065

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:	08/14/2019
PI PID Inspectors	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Inspection ID 12086	
Inspection Type Semiannual Lab Coordinators	
Deficiency Count: 0 Inspection Com	ients: 4
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals 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. Red 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	N/A
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research 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 mi IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/lacuc/	Acceptable ain
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/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 the 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	∋у
Gas cylinders immobilized; Eyewash check documented/dust caps in place Inspectors noted an eyewash that had the protective caps were not covering the eyewash. Please make sure that eyewash covers are in place so that debri does not build up and the eyewash can be used in case of emergency.	Acceptable s
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
 AGENTS ADMINISTERED Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) 	Amontohio
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable 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 N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention Inspectors noted that the lab was combining the total volume of Pancuronium bromide within the drug logs at the time of bottle receipt. Please keep a runn	Acceptable
balance for each bottle that is in use, and zero out each bottle once it is empty. A new log for the next bottle should be started at that time. 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 Obtained by Rise for Animals	N/A

IACUC Inspections	Details	Report
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Proper monitoring for depth of surgical anesthesia (toe pinch documented?)		
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	X
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:	08/13/2019
1 PID Inspectors	
nspection ID 12089 nspection Type Semiannual	
ab Coordinators	
Deficiency Count: 0 Inspection Comr	nents: 4
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with i (PI) and (lab 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.	Acceptable
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. Red 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 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/	Acceptable
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/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
 HEALTH AND SAFETY Gas cylinders immobilized; Eyewash check documented/dust caps in place Gas cylinders were not present. 	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	N/A
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
I 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) Dr. Matsushima and Kevin described the process of creating and maintaining the cuprizone chow and ensuring that it is used within two weeks.	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
3. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
2 SURGICAL PROCEDURES: General Considerations	
to and in manimum a hundling to a share in which the second of a supervision of the second	N/A
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	
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide Interior surfaces smooth and impervious to moisture	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	N/A N/A

IACUC Inspections	Details Report
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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)	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: Inspecti	ion Date: 08/13/2019
PI PID Inspecto	yrs.
Inspection ID 12090	
Inspection Type Semiannual Lab Coordinators	
	on Comments: 4
	si ovininuntor (
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	Acceptable
Summary Conducted Inspectors spoke with , the PI, during the inspection. All animal handlers and others exposed to animals in the lab should update the Ani	
Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 year	s.
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 regul ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	larly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to iacuc@med.unc.edu with all applica protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal act	
these spaces.	
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 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 t	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/	
	A disat disase
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the	
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	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	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 appropr	riately) 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
Inspectors found general clutter and items unrelated to surgery in the surgical area. Inspectors discussed the importance of the surgical area remai of clutter, items which cannot be sanitized and other items unrelated to the surgical procedure. Please tidy the surgical area to be free of general cli	
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 othe	,
according to the Guide	
The room was arranged into different areas for each component of surgery, such as animal preparation, surgery, post-op recovery. However, the Pt that there was the potential for conduction of non-surgical procedures during the same space where survival surgery was conducted. Inspectors d	liscussed
the importance of dedicating the room to survival surgical space during the times survival surgery was conducted. Please schedule procedures in t so that the non-surgical procedures are conducted during times when the room is not being used for survival surgery.	
Interior surfaces smooth and impervious to moisture	Acceptable
Obtained by Rise for Ani	,

IACUC Inspections Details Report

	12090
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-D Inspection Inspection Inspection Accordination Proceedination Proceedin	08/19/2019
Inspectrol Type Semiannul adapted to the semial constraints and optimization, as will ap perturbed the manual core or use and perturbed to the sectory involved with semial care or use and perturbed to the sectory involved with semial care or use and perturbed to the sectory involved with semial care or use and perturbed to the sectory involved with semial care or use and perturbed to the sectory involved with semial care or use and perturbed to the sectory involved with semial care or use and perturbed to the sectory involved with semial care or use and perturbed to the sectory involved with semial care or use and perturbed to the sectory involved with semial care or use and perturbed to the sectory involved with semial care or use and perturbed to the sectory involved with semial care or use and perturbed to the and perturbed to the sectory involved with semial care or use and the sectory involved with semial care or use and to the sectory involved with semial care or use and to the sectory involved with semial care or use and to the sectory involved with semial care of the sectory inv	
Summary Conducted Accepted The McCine of the other othe other other other other other othe other other other o	
The EACQUE and the Office of Animal Case and Lase appet that all comments and definitions: any well as portioned them allocated during the inspirated of all compared to the abort of the abor	
Emergency, weekend, and holiday contact information viable posted in animal housing area Current copy of Reporting an Animal Concern. CO2 Euthansia, Policy and Emergency Telephone Numbers posted Mode weekers in sport and sectors for sportaneous sets in sectors. Microsoft Sectors and Sectors an	ıble
Current copy of Reporting an Animal Concern, CO2 Euthansia Policy and Emergency Telephone Number posed. The Vice Section Sectin Sectin Sectin Section Section Section Sectin Section Section Se	
The RUCE Creates, Eventees in index reviews of the state state in a contribution state. A three documents are approved, they are posted to the state in RUCE Vesters, Standards and Quidance page. It is a contribution of the state intervest in tension of these documents on our vestels, and if you have some printed in the lab, the la	ible
https://www.chan.adu/usu/usu/usu/usu/usu/usu/usu/usu/usu/u	ıble
are updated on a reguin basis. We recommend checking the website at feast seminanually to update rowised policies maintained in hard cory by the lab. All personnel handling animalis in the lab trained, certified and on application, Annual Renewals & Lit Searches no longer req'd animals in the lab violad update the Animy. The IACUC Onstantianis is now requind to be completed only ons, while the DCM winners at memory a summa and combusing protocols are submatine is now requind to be completed only ons, while the DCM the Laboratory System. Email reminders are now only sent as new and combusing protocols are submatined to Pris and/or LACB, terms the lab recentification. Approved applications and amendments evaluable to and reviewed by laboratory personnel conducting animal research Acceptat DFALTH AND SAFETY Gas cylinders immobilized; Eyewash check documented/dust caps in place Proper sharps disposal, lazaravanging volatile anesthetics; check for Fair can weight Proper sharps disposal, lazaravanging volatile anesthetics; check for Fair can weight Proper sharps disposal, lazaravanging volatile anesthetics; check for Fair can weight Proper sharps disposal (especially hazard contaminated) Acceptat Proper sharps disposal (especially hazard contaminated) Acceptat Review of chemical hazard disposal (covered species) Acceptat Acceptat Animal handlers registered with University Employee Occupational Health Clinic-UECHC phone # 966-9119 Acceptat Acceptat Acceptat Animal handlers segistered with University Employee Occupational Health Clinic-UECHC phone # 966-9119 Acceptat Acceptat Animal handlers segistered with University Employee Occupational Health Clinic-UECHC phone # 966-9119 Acceptat Acceptat Animal handlers segistered with University Employee Occupational Health Clinic-UECHC phone # 966-9119 Acceptat Acceptat Animal handlers segistered with University Employee Occupational Health Clinic-UECHC phone # 966-9119 Acceptat Animal hadlers segistered with University Employee Occupational H	
unless USD A or DOD'NA Inspectors spoke with animation the lish should update the Animal Handler's manually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be rehaved avery? Syars. Email reiniders are now only sent as new and continuing protocols are submitted so Pis and/or LACS must check the Person and the for recarillation. Second the present dives for recarillation is now required to be completed only once, while the DCM orientation must all animals handless are up of adde on all three certifications. Selved the present dives for recarillations. All we have the present dives for recarillations and the present dives the present dives for recarillation. Selved the present dives for recarillations. Selved the present dives for selved the present dives for recarillations. Selved the present dives for selved the present dives for recarillations. Selved the present dives for selved the present dives of the present dives for selved the present dives for selved the present dives for the present dives of the pres	
anisation the lab should update the Aumal Handler form annually. The IACUE Onentation is now required to be completed only once, while the DCM contraction marked sea now only sent a new and continuing protocols are submitted to be for recontinuctation. Acceptate Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research Acceptate HEALTH AND SAFETY Acceptate Case cylinders immobilized, Eyewash check documented/dust caps in place Acceptate Procedures for using/scavenging volsitile anesthetics; check for Fair can weight Acceptate Care plate Care plate Proper sharps disposal, hazardous waste disposal Acceptate Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 Acceptate Ataring signits visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) Acceptate Cage side chemical hazard forms by laboratory personnel before initial use Acceptate Chical records for individual animals (covered species) Aniver animal health insues to Division of Comparative Medicine Cale side chemical hazard divertion signification tarining Acceptate Colincial records for individual animals (covered species) Aniver animal use adorative adorative adorative adorate adorate adorative adorative adorate adorate addrese adorate ad	ıble
ensure all animal handlens are up to date on all three certifications. Yellow check marks indicate the person is due for recentration. Acceptate Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research Acceptate Gas cylinders immobilized; Eyewash check documented/dust caps in place Acceptate Procedures for using/scature ging woletile ansisthetics; check for Fair can weight Acceptate Proper carcas disposal (especially hazerd contaminated) Acceptate Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 Acceptate Cage side chemical hazard form shy laboratory personnel before initial use Acceptate VANIMAL CARE Report carcas disposal (mazer do form shy laboratory personnel before initial use Acceptate VANIMAL CARE Report animal health issues to Division of Comparative Medicine Acceptate VANIMAL CARE Acceptate Acceptate Report animal health issues to Division of Comparative Medicine Acceptate Clinical records for individual animals (covered species) N/A Analgesiaranesthesia use as described in approved ACAP, tools sharp/adequate Acceptate MONITORING DOCUMENTATION (weight, drugs, post op care, elc) Acceptate Probre	
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SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care Acceptab	tble
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	

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Report Date: 02/19/2019

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:	08/27/2019
PI PID Inspectors	
Inspection ID 12092 Inspection Type Semiannual	
Lab Coordinators	
Deficiency Count: 0 Inspection Comm	ients: 5
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with the PI, during the inspection. was very thorough in describing the experimental procedures and techniques used in her laboratory. 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.	Acceptable
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. Red check marks indicate the person is due for recertification.	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to iacuc@med.unc.edu with all applicable protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal activity in these spaces.	
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/lacuc/	
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	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	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) Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable N/A
5. AGENTS ADMINISTERED	N/A
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) Inspectors observed that expired drugs were noted as "discarded" in the logs when they were being stored until they could be properly removed. This could lead to confusion as "discarded" implies they were removed from the premises. Please replace "discarded" in the logs with "separated from in-date stock due to expiration" to clarify that they were present but no longer being used.	No Deficiency
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 Inspectors did not observe double locks for storing controlled substances. Double locks, such as a lock box within a locked cabinet, are required to provide additional security for controlled substances. Please ensure that a second method of locking controlled substances, such as a lock box, is used.	No Deficiency
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention Although none of the agents reviewed were yet expired, inspectors did not observe an expiration date on bottles of drug cocktails. Writing just the date created is not sufficient to determine when a drug cocktail expires. Please indicate on the bottles the earliest expiration date of drugs used in a cocktail.	No Deficiency
Inspectors observed that drug logs contained a single column for "expiration" of cocktails. This could cause confusion as to which expiration date should be recorded. Please revise the header to clarify "earliest expiration date of drugs in cocktail."	
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)	Acceptable
according to the Guide	,
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



•	ion Date: 06/26/2019
1 PID Inspecto	18.5
nspection Type Semiannual .ab Coordinators	
	on Comments: 7
	Jii Comments. 7
I. 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 t in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orient must be renewed every 3 years.	to animals
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 regu ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	larly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to <u>iacuc@med.unc.edu</u> with all applica protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal act these spaces.	
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	
UNESS 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 in IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the	
As discussed, the LAC may train and certify lab members in techniques for which she has a Proficiency rating of 1. Please reference the following I instructions on certifying personnel: http://research.unc.edu/files/2012/11/CCM1_030728.pdf	ink for
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research 3. HEALTH AND SAFETY	Acceptable
Gas cylinders immobilized; Eyewash check documented/dust caps in place	Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight The LACs had a question about the need for both snorkel scavenging units which scavenge volatile anesthetics directly out of the room plus the us canisters with the isoflurane vaporizer. The inspectors indicated that the use of both may be redundant; however, to ensure adequate scavenging, should contact Cathy Brennan of EHS to determine how to have the space assessed.	
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
I 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) 5. AGENTS ADMINISTERED	N/A
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropr	riately) 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
	N/A
Proper Controlled Substance Storage and Records: double lock	Acceptable
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	· ?· ····· · ·
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention 3. PHYSICAL PLANT	
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention PHYSICAL PLANT Impervious surfaces	
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention PHYSICAL PLANT Impervious surfaces The separate, dedicated surgical space was in exemplary condition and is an excellent space in which to conduct surgical procedures in rodents.	Accontable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention PHYSICAL PLANT Impervious surfaces	Acceptable 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	Acceptable
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery Please review the Standard for Rodent Survival Surgery to ensure that serial survival surgeries are performed according to the standard. Although the standard does not indicate a maximum number of surgeries conducted in series with the same instruments, it contains helpful details about preferred methods and use of the bead sterilizer between surgeries.	No Deficiency
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time) Please review the Standard for Rodent Survival Surgeries for acceptable cold sterilization agents and appropriate contact time for sterilizing the fragile injection needles to ensure IACUC standards are being followed.	No Deficiency
Use of sterile gloves and drapes Tips only technique is employed and no drapes are used.	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
remperature/numury values recorded	N/A
Equipment properly sanitized, separation based on health status	1.007-0
	N/A
Equipment properly sanitized, separation based on health status	

spection ID 12100 spection Type Semiannual b Coordinators	pection Date: pectors	08/09/2019
b Coordinators Inspect Efficiency Court: 0 Inspect BRIEF SUMMARY OF WORK CONDUCTED IN THE LADORATORY Inspection: All animal bandles and not compare the completed only unce, while all the completed only unce, while all manuals the the IADORATORY Email remindes are now only user as now and continuing protocols are submitted so Pla and/or LACs must check the Personnel tab in ACJ consult check the Personnel tab in ACJ consult check marks indicate the person is due for recentification. DOCUMENTATIONS and POSTINOS Constraints indicate the personnel tab in ACJ consult check the Personnel tab in ACU consult check the Personnel tab in ACJ consult check the Personnel tab in ACU consult check the Personnel tab in ACJ consult check the Person in ACU co	1668 BUI B	
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Summary Conducted Intervention	ection Commer	nts: 4
Inspection spoke with the Laboratory Annual Coordinator (LAC), during the inspection. All annual handlers and othese annuals in the label bade update the Annual Handler form annually. The IACUC Greations in some required to be completed only once, while orientation must be renewed every 3 years. Emergency, weekend, and holiday contact information visibly posted in animal housing area SUrrent copy of Reporting an Animal Concern, CC2 Euthanasia Policy and Emergency Telephone Numbers posted the IACUC creation of the transmission of the action of the transmission of transmission of transmission of transmission of transmission of the transmission of transmis		
ensure all animal handles are up to date on all three certifications. Red check marks indicate the person is due for recertification. DOCUMENTATIONS and POSTINGS Emergency, weekend, and holiday contact information visibly posted in animal housing area Durrent copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted the KOU creations, reviews admot particulates on a monthy basis. As these documents are approved, they are IACU webpage undar important Notices for approximately site months: https://research.unc.edu/ance.page: https://research.unc.edu/ancet.com https://research.unc.edu/ancet.c		Acceptable
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Durrent copy of Reporting an Animal Concern, CO2 Euthanesia Policy and Emergency Telephone Numbers potes The MCUC resists reviews auron's Standards and Polices on a motify basis. As these documents are approved, they are ACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/acuc/ AII IACUC guidance documents can be found under the retevant heading on the IACUC Policy. Standards and Guidance page: https://research.unc.edu/acuc/policies-procedures/ Prease ensure that your laboratory references the most needer versions of these documents on our website, and You have some printed in reupdated on a regular basis: We recommend choicing the website at least semannaulus to update revised policies maintained in hard co- All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no I- mere status on a mendments available to and reviewed by laboratory personnel conducting animal reser- HEALTH AND SAFETY Bas cylinders immobilized; Eyewash check documented/dust caps in place Prease foliow paduit free stitutions of these documented/dust caps in place Prease foliow paduit free stitutions waste disposal Durrent copy of Needle Safety in Animal Studies posted Proper acroass disposal (especially hazard contaminated) Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 Aarning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) 2age side chemical hazard identification training Review of chemical hazard identification training Review of chemical hazard identification training Review as described in approved ACAP Euthanasia performed as described in approved ACAP Euthanesia performed as described in approved ACAP AGENTS ADMINISTERED Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked ap Pharmacutical or veterinary grade agents used (exception required for Non-pharmacculical g		Acceptable
https://research.unc.edu/iscuc/policies_procedures/ Presse ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printed in are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard co III personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no I miess USDA or DoD/VA Approved applications and amendments available to and reviewed by laboratory personnel conducting animal rese HEALTH AND SAFETY Cas cylinders immobilized; Eyewash check documented/dust caps in place Presse flow up about the advisualisher eartification (in room 300 with Eris. Procedures for using/scavenging volatile anesthetics, check for Fair can weight Proper sharps disposal, hazardous waste disposal Current copy of Needle Safety in Animal Studies posted Proper carcass disposal (especially hazard contaminated) Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 Aaming signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) Cage side chemical hazard forms by laboratory personnel before initial use ANIMAL CARE Report animal health issues to Division of Comparative Medicine Clinical records for individual animals (covered species) Analgesia/anesthesia use as described in approved ACAP; tools sharp/adequate Means to track animal usage/Euthanasia (g ONITORING DOCUMENTATION (weight, drugs, post op care, etc) Foe Clip Discussion (max P10, 2 toes, approved in ACAP) AGENTS ADMINISTERED Proper controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervent PHYSIOAL PLANT mpervious surfaces Behavior studies: condition of behavioral Please to experiments or when animalse a General Ceanter (consideration), storage, and proper maintenance- aware of Standan Proper Controlled Substance Storage		Acceptable
are updated on a regular basis. We recommend checking the website at test semiannually to update revised policies maintained in hard co NII personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no I miless USDA or DO/VA Approved applications and amendments available to and reviewed by laboratory personnel conducting animal rese HEALTH AND SAFETY ass oviinders immobilized; Eyewash check documented/dust caps in place Please follow up about the extinguisher certification (in room 306) with Ets. Procedures for using/scavenging volatile anesthetics; check for Fair can weight "Opper sharps disposal, hazardous waste disposal Current copy of Needle Safety in Animal Studies posted "Proper starps disposal, hazardous waste disposal Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 Varning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) Cage side chemical hazard identification training Review of chemical hazard forms by laboratory personnel before initial use ANIMAL CARE Beport animal health issues to Division of Comparative Medicine Clinical records for individual animals (covered species) Analgesia/anesthesia use as described in approved ACAP; tools sharp/adequate Means to track animal usage/Euthanasia log MONITORING DOCUMENTATION (weight, drugs, post op care, etc) Foe Clip Discussion (max P10, 2 toes, approved in ACAP) AGENTS ADMINISTERED Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked ap Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) Fribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standan Proper Controlled Substance Storage and Records; double lock Proper logs maintalined for agents used to administer anesthesia, analgesia and for euthanasia and acute intervent PHYSICAL PLANT mpervious surfaces Potent abble		
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Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) Cage side chemical hazard identification training Review of chemical hazard forms by laboratory personnel before initial use ANIMAL CARE Report animal health issues to Division of Comparative Medicine Clinical records for individual animals (covered species) Analgesia/anesthesia use as described in approved ACAP Euthanasia performed as described in approved in ACAP) AGENTS ADMINISTERED Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked ag Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) Fribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standar Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervent PHYSICAL PLANT mpervious surfaces Noted a table with exposed wood during inspection. Please cover the exposed area when using the area for experiments or when animals an General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations occation minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically		Acceptable
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Means to track animal usage/Euthanasia log MONITORING DOCUMENTATION (weight, drugs, post op care, etc) Foe Clip Discussion (max P10, 2 toes, approved in ACAP) AGENTS ADMINISTERED Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked application veterinary grade agents used (exception required for Non-pharmaceutical grade) Fribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervent PHYSICAL PLANT mpervious surfaces Noted a table with exposed wood during inspection. Please cover the exposed area when using the area for experiments or when animals and General cleanliness Schavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically		N/A
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SURGICAL PROCEDURES: General Considerations ocation minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically		Acceptable
ocation minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically		Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically		61/A
	y or otherwise)	N/A N/A
nterior surfaces smooth and impervious to moisture		N/A
Fixed equipment is sanitizable		N/A
SURGICAL PROCEDURES: Anesthesia		
Adequate records of anesthesia and preoperative care		N/A

Report Date: 08/09/2019

Report Date: 08/09/2019	
12190	

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

PID	memorine	
spection ID 12104	Inspectors	
spection Type Semiannual		
b Coordinators	6 (C @	
ficiency Count: 0	Inspection Commen	IS: 3
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		A
Summary Conducted Inspectors spoke with		Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel t ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ab in ACAP regularly to	
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 All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Search unless USDA or DoD/VA		Acceptable N/A
Approved applications and amendments available to and reviewed by laboratory personnel conducting anim The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/lacuc/		Acceptable
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained i		
HEALTH AND SAFETY Gas cylinders immobilized; Eyewash check documented/dust caps in place		Acceptable
Bas cylinders infinobilized, Eyewast check documented/dust caps in place 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	ć	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
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
AGENTS ADMINISTERED		
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or ma Please refer to the following link for a copy of the IACUC Standard for Administered Agents for guidelines on how to determine exp reconstituted drugs: https://research.unc.edu/files/2013/10/Guidelines-for-Administered-Agents.pdf	arked appropriately) piration date on	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 S	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 ir	ntervention	Acceptable
PHYSICAL PLANT		
Impervious surfaces		Acceptable
General cleanliness		Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	g	N/A
SURGICAL PROCEDURES: General Considerations		
Location minimizes traffic/contamination (survival surgery)		N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (phy according to the Guide	vsically or otherwise)	N/A
interior surfaces smooth and impervious to moisture		N/A
Fixed equipment is sanitizable		N/A
SURGICAL PROCEDURES: Anesthesia		
Adequate records of anesthesia and preoperative care		N/A

Report Date: 08/14/201	9
12194	

IACUC Inspection	is Details Report
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	1210
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

	Inspection Date: 08/19/	201
PI PID nspection ID 12105	Inspectors	
nspection Type Semiannual		
ab Coordinators		
	Inspection Comments: 3	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed t should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orient 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 A ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ACAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further these spaces.		
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 post		
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no	o 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 ar IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	ire posted to the main	
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard	d in the lab, that they I copy by the lab.	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal res	search 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 Inspectors observed that the isoflurane vaporizer did not have an inspection sticker because it was recently purchased. This could lead to regarding when it needs to be calibrated next. Please attach a sticker indicating when it was purchased so that it is clear when it needs to		ł
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	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	lard? 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 interve	ention Acceptable	
). PHYSICAL PLANT		
Impervious surfaces	Acceptable	
General cleanliness	Acceptable	
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning 7. SURGICAL PROCEDURES: General Considerations	N/A	
Location minimizes traffic/contamination (survival surgery)	N/A	~~~~
Functional components (animal preparation, operating room, post-op recovery designed and separated (physicall according to the Guide		
Interior surfaces smooth and impervious to moisture	N/A	
Fixed equipment is sanitizable	N/A	
	•	

IACUC Inspections Details Report

Report Date: 08/27/2019
12105

Acceptable
Acceptable
N/A
Acceptable
N/A
N/A
N/A

Pi:	nspection Date:	08/19/2019
-	ispectors	00/10/201:
Inspection ID 12106		
Inspection Type Semiannual		
Lab Coordinators	enation Comm	unter 3
	Ispection Comme	nns: J
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		6
Summary Conducted inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orients renewed every 3 years.	animals in the lab	Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in AC ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	CAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with a protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further a these spaces.		
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 poste		Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no 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		Acceptable
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard c		
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal res		Acceptable
er		N/A
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 Inspectors observed that the isoflurane vaporizer did not have an inspection sticker because it was recently purchased. This could lead to regarding when it needs to be calibrated next. Please attach a sticker indicating when it was purchased so that it is clear when it needs to be	confusion	No Deficiency
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
er		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		Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate		Acceptable
Means to track animal usage/Euthanasia log	i.	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 a	appropriately)	Acceptable
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)		Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standa	ird?	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 interver	ntion .	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 (physicall) according to the Guide		N/A
Interior surfaces smooth and impervious to moisture	or Animals. Up	N/A

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Report Date: 08/27/2019

IACUC Inspections Details Report

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

	Inspection Date: 08/21/2019 Inspectors
spection ID 12117	negetetti o
spection Type Semiannual	
ab Coordinators	Inconsting Commenter 3
	Inspection Comments: 3
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	<u>Assantahia</u>
Summary Conducted Inspectors spoke with the PI, during the inspection. was very thorough in describing her research and experime complete, organized records that were easy to follow. All animal handlers and others exposed to animals in the lab should update the An 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 ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ACAP regularly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to iacuc@med.unc.edu with protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further these spaces.	
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 pos	ted Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches n	
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 a IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	ire posted to the main
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 printe are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard	d in the lab, that they i copy by the lab.
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal re	search Acceptable
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	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
ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine	Acceptable
Clinical records for individual animals (covered species)	Acceptable
Inspectors, including at least 2 IACUC members, and a DCM veterinarian reviewed USDA covered species records as part of this semian	nual inspection.
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
. 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 Stand	lard? 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 interve	ention Acceptable
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physical according to the Guide	
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
. SURGICAL PROCEDURES: Anesthesia	



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

	nspection Date: 09/19/2019
PI PID In Inspection ID 12120	ispectors
Inspection Type Semiannual	
Lab Coordinators	
Definitionary County ()	anaption Commenter 3
	spection Comments: 3
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	Assessmelle
Summary Conducted Inspectors spoke with a member of the lab, during the inspection. All animal handlers and others exposed to animals in the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must I 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 ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	n ACAP regularly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu wi protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to furth these spaces.	
2. DOCUMENTATIONS and IACUC 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 po	osted Acceptable
All personnel handling animals in the lab trained/certified and on application	Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?	Acceptable
Other	N/A
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; Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal/hazardous waste 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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?	N/A
Review of chemical hazard forms by laboratory personnel before initial use	N/A N/A
Other 4. ANIMAL CARE	N/A
Does the lab know how to report animal health issues to DCM?	Acceptable
If USDA regulated species, are there clinical records for individual animals?	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools	
Means to track animal usage	Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)	Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)	N/A
Other	N/A
5. AGENTS ADMINISTERED	
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Star	
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention	Acceptable
Proper Controlled Substance Storage and Records; double lock, running balance	Acceptable
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked a	appropriately) Acceptable
Other	N/A
5. PHYSICAL PLANT- Lab Space	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; A	Are they on the N/A
DCM biological monitoring schedule?	
Other	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 (physic according to the Guide	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
	Acceptable
Interior surfaces smooth and impervious to moisture	,
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable Other	Acceptable N/A

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Report Date: 09/19/2019

8 SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care Surgical logs were very organized as the lab utilized a customized version of the IACUC template to suit their needs.	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Other Inspectors informed the lab that the vaporizer may be calibrated during the annual appointment scheduled by DCM veterinary services for Eagle Eye Calibration. This option is less expensive than an individual appointment and usually occurs in May-June of each year. Please look for emails from the NLAC listserv or contact DCM Vet Services regarding the DCM scheduled appointment. 9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	Acceptable
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	Acceptable
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable
Closure method	Acceptable
Other	N/A

PI: Inspec	tion Date: 09/11/2019
PI PID Inspect	ors
Inspection ID 12121 Inspection Type Semiannual	
Lab Coordinators	
	ion Comments: 2
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. was very knowledgeable about and was thorough in her responses to questions. All animal handlers and others exposed to animals in the lab should update the Animal Hand 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 ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	regularly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all ap protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further anim these spaces.	
2. DOCUMENTATIONS and IACUC 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	Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?	Acceptable
Other	N/A
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; Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal/hazardous waste 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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
Other	N/A
4. ANIMAL CARE	
Does the lab know how to report animal health issues to DCM?	Acceptable
If USDA regulated species, are there clinical records for individual animals?	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools sharp	adequate Acceptable
Means to track animal usage	Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)	Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)	Acceptable
Other	N/A
5 AGENTS ADMINISTERED	
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention inspectors observed that lab members correctly crossed out errors in drug logs with a single line. In some instances, initials next to the error observed. Please initial any errors to identify the individual making a correction.	Acceptable were not
Proper Controlled Substance Storage and Records; double lock, running balance	Acceptable
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked approp	riately) Acceptable
Other	N/A
6 PHYSICAL PLANT- Lab Space	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are the	*
DCM biological monitoring schedule?	61/8
DCM biological monitoring schedule? Other	N/A
	N/A
Other	N/A
Other 7. SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or according to the Guide	N/A otherwise) N/A
Other 7. SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or according to the Guide Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Other 7 SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or according to the Guide Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Interior surfaces smooth and impervious to moisture	N/A otherwise) N/A N/A Acceptable
Other 7. SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or according to the Guide Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A otherwise) N/A N/A

8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	N/A
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	N/A
Closure method	N/A
Other	N/A

	Inspection Date:	09/05/2019
PI PID nspection ID 12125	Inspectors	
ispection Type Semiannual		
ab Coordinators	<i>.</i>	
Deficiency Count: 0	Inspection Commen	ts: 5
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while th be renewed every 3 years.		Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tal ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	b in ACAP regularly to	
DOCUMENTATIONS and IACUC 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		Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?		Acceptable
Other		N/A
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, th IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	hey are posted to the main	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/policies-procedures/		
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some pi are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in		
I 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; Current copy of Needle Safety in Animal Studies posted		Acceptable
Proper carcass disposal/hazardous waste disposal (especially hazard contaminated) Inspectors discussed the use of transparent, non-PVC containing bags to store carcasses for disposal. These bags can be obtained 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	I through DCM, and should	No Deficiency
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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?		Acceptable
Review of chemical hazard forms by laboratory personnel before initial use		Acceptable
Other		No Deficiency
The recertification sticker for the hood in this room shows 07/2016 as the due date. Please replace the sticker with the current due date recertified.	iate or have the machine	
A ANIMAL CARE		
Does the lab know how to report animal health issues to DCM?		Acceptable
If USDA regulated species, are there clinical records for individual animals?		N/A
Anginasia/anasinasia lisa as nascrinan in annrovan al 10 M	, , , , ,	Acceptable
Analgesia/anesthesia use as described in approved ACAP		
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method too	vis silaip/aucquate	Acceptable
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Other	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
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	N/A
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	N/A
Closure method	N/A
Other	N/A

University of North Carolina - Chapel Hill

PI: Inspection Date	e: 09/18/2019
PI PID Inspectors	
Inspection ID 12127 Inspection Type Semiannual Lab Coordinators	IACUC DCM Veterinarian
Deficiency Count: 0 Inspection Com	ments: 2
1 BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted Inspectors spoke with others exposed to animals in the PI, during the inspection. was very thorough in his responses and explanations. All animal handlers others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only or 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 regular ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification. Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all applicable	e
protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal activi these spaces.	ny m
2. DOCUMENTATIONS and IACUC 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	Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?	Acceptable
Other	N/A
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; Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal/hazardous waste 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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?	N/A
Review of chemical hazard forms by laboratory personnel before initial use	N/A
Other	N/A
4. ANIMAL CARE	Acceptable
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 4 ANIMAL CARE Does the lab know how to report animal health issues to DCM? If USDA regulated species, are there clinical records for individual animals? Anatgesia/anesthesia use as described in approved ACAP If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools sharp/adeq Means to track animal usage Experimental Monitoring Documentation (weight loss, tumor size, etc.) Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP) Other 5 AGENTS ADMINISTERED Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper records maintained for agents are within expiration date (expired drugs separated or marked appropriately) Drugs and biological agents are within expiration date. Other 6 PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on th DCM biological monitoring schedule? Other 	Acceptable Acceptable Acceptable Acceptable Acceptable N/A N/A Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable
 4. ANIMAL CARE Does the lab know how to report animal health issues to DCM? If USDA regulated species, are there clinical records for individual animals? Analgesia/anesthesia use as described in approved ACAP If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools sharp/adeq Means to track animal usage Experimental Monitoring Documentation (weight loss, tumor size, etc.) Toe Clip Discussion (max day 10, max 4 loes, 2 toes per foot (not the dewclaw), approved in ACAP) Other 5. AGENTS ADMINISTERED Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriately Drugs and biological agents were very organized and color-coded for ease of monitoring expiration dates. Other 6. PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on th DCM biological monitoring schedule? Other 7. SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or othen 	Acceptable Acceptable Acceptable Acceptable Acceptable N/A N/A Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable
 4. ANIMAL CARE Does the lab know how to report animal health issues to DCM? If USDA regulated species, are there clinical records for individual animals? Analgesia/anesthesia use as described in approved ACAP If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools sharp/adeq Means to track animal usage Experimental Monitoring Documentation (weight loss, tumor size, etc.) Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP) Other 5. AGENTS ADMINISTERED Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard? Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriately Drugs and biological agents are within expiration date (expired drugs separated or marked appropriately Drugs and biological agents used for ease of monitoring expiration dates. Other 6. PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on th DCM biological monitoring schedule? Other 7. SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or othen according to the Guide 	Acceptable Acceptable Acceptable Acceptable Acceptable N/A N/A Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable

20 y p

Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	Acceptable
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable
Closure method	Acceptable
Other	N/A

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기: 기 PID	Inspection Date: Inspectors	07/31/	2019	
nspection ID	12128			
nspection Type .ab Coordinators	Semiannual	ACUC	IACUC	CVet
Deficiency Count:	0 Inspection Comments: 3	3		
BRIEF SUMMAF	RY OF WORK CONDUCTED IN THE LABORATORY			
Summary Conduct Inspectors spoke w lab should update t renewed every 3 ye	ith , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in he Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must l	n the	cceptable	
	e now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly tr andlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	o		
2. DOCUMENTATI	ONS and POSTINGS			
Emergency, week	end, and holiday contact information visibly posted in animal housing area	А	cceptable	
Current copy of R	eporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	A	cceptable	
unless USDA or E The IACUC creates	dling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'o DD/VA , reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the der 'important Notices' for approximately six months: https://research.unc.edu/iacuc/		cceptable	
	e documents can be found under the relevent heading on the IACUC Policy, Standards and Guidance page: c.edu/lacuc/policies-procedures/			
	your laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that			
	gular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab. tions and amendments available to and reviewed by laboratory personnel conducting animal research		cceptable	
Approved application MEALTH AND S		~ ~	ວວອີກເສນາຮ	
	nobilized; Eyewash check documented/dust caps in place	Д	cceptable	
•	ing/scavenging volatile anesthetics; check for Fair can weight		cceptable	
	posal, hazardous waste disposal		cceptable	
	eedle Safety in Animal Studies posted		cceptable	
	sposal (especially hazard contaminated)		cceptable	
•	egistered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119		cceptable	
	ible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)		cceptable	
	al hazard identification training		cceptable	
-	al hazard forms by laboratory personnel before initial use		cceptable	
I. ANIMAL CARE	, ,,		,	
	alth issues to Division of Comparative Medicine	A	cceptable	
Clinical records fo	r individual animals (covered species) ig at least 2 IACUC members, and a DCM veterinarian reviewed USDA covered species records as part of this semiannual inspection.		.cceptable	
Analgesia/anesth	esia use as described in approved ACAP	A	cceptable	
Euthanasia perfor	med as described in approved ACAP; tools sharp/adequate	А	cceptable	
Means to track an	imal usage/Euthanasia log	А	cceptable	
MONITORING DO	DCUMENTATION (weight, drugs, post op care, etc)	A	cceptable	
Toe Clip Discussion	on (max P10, 2 toes, approved in ACAP)	А	cceptable	
AGENTS ADMIN	IISTERED			
	for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately	y) A	cceptable	
Pharmaceutical or	r veterinary grade agents used (exception required for Non-pharmaceutical grade)		cceptable	
	Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N	I/A	
	Substance Storage and Records; double lock	A	cceptable	
Proper logs maint	ained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention NT	A	cceptable	
Impervious surfac		A	cceptable	
General cleanline			cceptable	
Behavior studies:	condition of behavioral boxes/secondary enclosures, method and agents used for cleaning		I/A	
	CEDURES: General Considerations			
Location minimize	s traffic/contamination (survival surgery)	A	cceptable	
	nents (animal preparation, operating room, post-op recovery designed and separated (physically or otherwis	se) A	cceptable	
-	mooth and impervious to moisture	А	cceptable	
Fixed equipment i	s sanitizable	А	cceptable	
SURGICAL PRO	CEDURES: Anesthesia			
Adequate records	of anesthesia and preoperative care	A	cceptable	
m	for depth of surgical anesthesia (toe pinch documented?)	Δ	cceptable	

IACUC	Inspections	Details	Report
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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	мъсране
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
	N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A N/A
Use of effective aseptic procedures for survival surgery	N/A N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	
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

	Inspection Date: 09/24/2019 nspectors
nspection ID 12130	e e v ge w 16 6 18 18
nspection Type Semiannual	
ab Coordinators	
	nspection Comments: 3
I BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with , the Laboratory Animal Coordinator (LAC), and a member of the lab, during the inspection and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be of 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 A ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	CAP regularly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further these spaces.	
2. DOCUMENTATIONS and IACUC 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 pos	
All personnel handling animals in the lab trained/certified and on application	Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?	Acceptable
Other	N/A
3 HEALTH AND SAFETY	A
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; Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal/hazardous waste disposal (especially hazard contaminated) Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?	N/A
Review of chemical hazard forms by laboratory personnel before initial use	N/A
Other	N/A
4 ANIMAL CARE	
Does the lab know how to report animal health issues to DCM?	Acceptable
If USDA regulated species, are there clinical records for individual animals?	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools s	harp/adequate Acceptable
Means to track animal usage	Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)	Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)	Acceptable
Other	N/A
5. AGENTS ADMINISTERED	
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Stand	ard? N/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention	Acceptable
Proper Controlled Substance Storage and Records; double lock, running balance	Acceptable
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked ap	• • •
Other	N/A
6 PHYSICAL PLANT- Lab Space	
Impervious surfaces	Acceptable
General cleanliness Robaviar studies: condition of bobaviaral boxos/secondary analosures, mathed and agants used for cleaning: Arr	Acceptable N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Arc DCM biological monitoring schedule? Other	
Lab members perform survival surgeries in the lab space of	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 (physical according to the Guide	ly or otherwise) Acceptable
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
	Acceptable
Interior surfaces smooth and impervious to moisture	/ compression

Report Date: 09/24/2019

Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery) Please note that for some survival surgeries, DCM veterinarians are now recommending administration of pre-emptive analgesics. Please continue to follow the procedure outlined in your protocol, and contact the DCM veterinarians to discuss the possible need to add pre-emptive analgesics to the protocol.	Acceptable v
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	Acceptable
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable
Closure method	Acceptable
Other	N/A

P):	Inspection Date:	09/04/2019
PI PID	Inspectors	
Inspection ID 12135 Inspection Type		
Lab Coordinators		
Deficiency Count: 0	Inspection Comme	nts: 2
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted		Acceptable
		,
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personne ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification		
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.e protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to these spaces.		
2. DOCUMENTATIONS and IACUC 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 Numbe	rs posted	Acceptable
All personnel handling animals in the lab trained/certified and on application		Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?		Acceptable
Olher		N/A
3. HEALTH AND SAFETY		A
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; Current copy of Needle Safety in Animal Studies posted		Acceptable
Proper carcass disposal/hazardous waste disposal (especially hazard contaminated)	10	Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-911 Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	10	Acceptable Acceptable
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?		N/A
Review of chemical hazards forms by laboratory personnel before initial use		N/A N/A
Other		N/A
4. ANIMAL CARE		
Does the lab know how to report animal health issues to DCM?		Acceptable
If USDA regulated species, are there clinical records for individual animals?		N/A
Analgesia/anesthesia use as described in approved ACAP		Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method	tools sharp/adequate	Acceptable
Means to track animal usage	. 3	Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)		Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)		N/A
Other		N/A
5 AGENTS ADMINISTERED		
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)		Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of		N/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Researchers maintained proper surgical and drug logs. Inspectors observed a few pages that did not clearly differentiate betwee This can lead to confusion if different individuals are utilizing the log. Please distinguish each page as stock or dilution bottle.	n stock and dilution bottles.	Acceptable
Proper Controlled Substance Storage and Records; double lock, running balance		Acceptable
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or mark	ked appropriately)	Acceptable
Other		N/A
6 PHYSICAL PLANT- Lab Space		
Impervious surfaces		Acceptable
		Acceptable
General cleanliness		Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleani DCM biological monitoring schedule?	ng; Are they on the	,
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleani DCM biological monitoring schedule? Other	ng; Are they on the	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleani DCM biological monitoring schedule? Other 7. SURGICAL PROCEDURES: General Considerations	ng; Are they on the	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning DCM biological monitoring schedule? Other 7 SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (pl		,
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleanin DCM biological monitoring schedule? Other 7 SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (pl according to the Guide		N/A Acceptable Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning DCM biological monitoring schedule? Other 7 SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (pl according to the Guide Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure		N/A Acceptable Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning DCM biological monitoring schedule? Other 7 SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (placeording to the Guide		N/A Acceptable Acceptable

Obtained by Rise for Animals. Upfoaded 07/05/2020

8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	Acceptable
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable
Closure method	Acceptable
Other	N/A

PI:	nspection Date: 09/03/2019
	spectors
Inspection ID 12136 Inspection Type Semiannual	
Lab Coordinators	
	spection Comments: 2
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 the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the I be renewed every 3 years.	s exposed to animals in
Email reminders are now only sent as new and continuing protocols are submitted so Pis and/or LACs must check the Personnel tab in ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification. 2. DOCUMENTATIONS and IACUC POSTINGS	n ACAP regularly to
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 po	,
All personnel handling animals in the lab trained/certified and on application	Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?	Acceptable
Other	N/A
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	y are posted to the main
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 prin are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in ha	
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; Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal/hazardous waste 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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
Other	N/A
4. ANIMAL CARE	
Does the lab know how to report animal health issues to DCM?	Acceptable
If USDA regulated species, are there clinical records for individual animals?	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools	
Means to track animal usage	Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)	Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)	N/A
Other	N/A
5. AGENTS ADMINISTERED	
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Star	
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention	Acceptable
Proper Controlled Substance Storage and Records; double lock, running balance	Acceptable
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked a	
Other 3. PHYSICAL PLANT- Lab Space	N/A
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; A DCM biological monitoring schedule?	
Other	N/A
Surgical PROCEDURES: General Considerations	1001
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physic according to the Guide	
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
	,
Interior surfaces smooth and impervious to moisture	Acceptable

Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	Acceptable
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable
Closure method	Acceptable
Other	N/A

Report Date: 09/03/2019

	Inspection Date: 09/04/2019
I PID Ispection ID 12137	nspectors
spection Type Semiannual	
ab Coordinators	
eficiency Count: 0	nspection Comments: 5
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab i ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	in ACAP regularly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu w protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to furth these spaces.	
DOCUMENTATIONS and IACUC 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 po	osted Acceptable
All personnel handling animals in the lab trained/certified and on application	Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?	Acceptable
Other	N/A
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; Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal/hazardous waste 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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?	N/A
Review of chemical hazard forms by laboratory personnel before initial use	N/A
Other	N/A
ANIMAL CARE	
Does the lab know how to report animal health issues to DCM?	Acceptable
If USDA regulated species, are there clinical records for individual animals?	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools	s sharp/adequate Acceptable
Means to track animal usage	Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)	Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)	N/A
Other	N/A
AGENTS ADMINISTERED	
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Sta	ndard? N/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention The drug logs were properly maintained by the researchers. However, the same sheet was used for multiple bottles. Please use a sepa new bottle is used.	No Deficiency arate sheet each time a
Proper Controlled Substance Storage and Records; double lock, running balance Controlled substances were kept in a locked cabinet within the lab space. Double locks are required for storing controlled substances the inspection, please obtain a lock box that is stored inside the locked cabinet, creating a double lock system for controlled substance	
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked a	
Other	N/A
PHYSICAL PLANT- Lab Space	••••
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; / DCM biological monitoring schedule?	,
Other The hood in TB 6113 was due for an inspection on February 2019. The LAC explained that the hood was not used for any animal work, the LAC to post a note that the hood is not being used for animal work until they can schedule an inspection.	No Deficiency Inspectors reminded
SURGICAL PROCEDURES: General Considerations	
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physic according to the Guide	•
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
	e for Animals. Uploaded 07/05/2

Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
Other Inspectors noted that a box of sutures in the surgical area was expired, despite the lab not performing any survival surgeries. Please write "Expired" to avoid accidental use in survival surgeries.	Acceptable
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	N/A
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	N/A
Closure method	N/A
Other	N/A

가: Inspectio 가 PID Inspecto	ion Date: 09/24/;	2019
spection ID 12138	315	
spection Type Semiannual		
b Coordinators	n (n	
ficiency Count: 0 Inspectio	on Comments: 3	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with , the PI and Laboratory Animal Coordinator (LAC), during the inspection. was very thorough answering questions and providing information related to the inspection. All animal handlers and others exposed to animals in the lab should updat Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every	ite the	
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 regul ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.		
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all applical protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal acti these spaces.		
According to all future animal work will be conducted in the DCM facilities rather than lab space. This practice alleviates the requirement a semiannual inspection of your lab space so we are changing you over to a yearly informational inspection schedule instead. If the lab begins perfor surgeries or other procedures within the lab space, we must be contacted so that we can visit the space semiannually. If you should need any assis 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/lacuc/index.htm).	forming	
DOCUMENTATIONS and IACUC 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	Acceptable	
How are approved applications and amendments available to and reviewed by laboratory personnel?	Acceptable	
Other	N/A	
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; Current copy of Needle Safety in Animal Studies posted	Acceptable	
Proper carcass disposal/hazardous waste 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	
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?	Acceptable	
Review of chemical hazard forms by laboratory personnel before initial use Other	Acceptable N/A	
ANIMAL CARE	IV/A	
Does the lab know how to report animal health issues to DCM?	Acceptable	
If USDA regulated species, are there clinical records for individual animals?	N/A	
Analgesia/anesthesia use as described in approved ACAP	Acceptable	
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools sharp/ade		
Means to track animal usage	Acceptable	
Experimental Monitoring Documentation (weight loss, tumor size, etc.)	Acceptable	
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)	N/A	
Other	N/A	
AGENTS ADMINISTERED		
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Acceptable	
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable	
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention	Acceptable	
Proper Controlled Substance Storage and Records; double lock, running balance	N/A	
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriatel	ely) Acceptable	
Other	N/A	
PHYSICAL PLANT- Lab Space		
Impervious surfaces	Acceptable	
General cleanliness	Acceptable	
	n the N/A	
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on DCM biological monitoring schedule?		
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on DCM biological monitoring schedule? Other	N/A	
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations		
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery)	Acceptable	
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations	Acceptable	

Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care Surgical logs were well-maintained by the lab. Inspectors noted that one checkbox for "new or sterilized instruments between animals" was checked. In order for this box to be checked, please ensure that all instruments that touch the animals are new or appropriately sterilized.	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
o denerorier neoecconce, reepile resinique les contrais receduico	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
	Acceptable Acceptable
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area Inspectors were informed that forceps used to stabilize the head during surgery were rinsed with alcohol and PBS between animals. Alcohol is a disinfectant but not a sterilant. Please consult with a DCM veterinarian regarding whether a hot bead sterilizer is necessary, or if alcohol and PBS is sufficient, between	,
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area Inspectors were informed that forceps used to stabilize the head during surgery were rinsed with alcohol and PBS between animals. Alcohol is a disinfectant but not a sterilant. Please consult with a DCM veterinarian regarding whether a hot bead sterilizer is necessary, or if alcohol and PBS is sufficient, between surgeries due to the minimal contact the forceps make with each animal. Also, please update IACUC with their response.	Acceptable
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area Inspectors were informed that forceps used to stabilize the head during surgery were rinsed with alcohol and PBS between animals. Alcohol is a disinfectant but not a sterilant. Please consult with a DCM veterinarian regarding whether a hot bead sterilizer is necessary, or if alcohol and PBS is sufficient, between surgeries due to the minimal contact the forceps make with each animal. Also, please update IACUC with their response. Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	Acceptable Acceptable
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area Inspectors were informed that forceps used to stabilize the head during surgery were rinsed with alcohol and PBS between animals. Alcohol is a disinfectant but not a sterilant. Please consult with a DCM vetrinarian regarding whether a hot bead sterilizer is necessary, or if alcohol and PBS is sufficient, between surgeries due to the minimal contact the forceps make with each animal. Also, please update IACUC with their response. Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time) Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable Acceptable Acceptable

	spection Date: 05/29/2019 spectors
nspection ID 12140	IACÚC Vet
nspection Type Semiannual ab Coordinators	
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 expo animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the Do orientation must be renewed every 3 years.	sed to CM
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 unless USDA or DoD/VA	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable to the main
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by t	
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	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	N/A
4. ANIMAL CARE	A secondadala
Report animal health issues to Division of Comparative Medicine Clinical records for individual animals (covered species)	Acceptable 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	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 appropriated appropri	riately) 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
9. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
: 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 oth according to the Guide	
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
SURGICAL PROCEDURES: Anesthesia	λ1/A
Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A N/A
riopermonnomy for depth of surgical anesthesia (toe phon documented ()	N/A N/A
Procedures for administering and monitoring analogeia (curvival curgen)	1N//M
Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A

IACUC	Inspections	Details	Renort
22000	1100000010110	10 0 0 0 0 0 0 0	110,0016

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 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.	No Deficiency
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

78: 	Inspection Date:	09/03/2019
1 PID hspection ID 12143	Inspectors	
spection Type Semiannual		
b Coordinators		
aficiency Count: 0	Inspection Commer	its: 3
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with , the Laboratory Animal Coordinator (LAC) and Principal Investigator (PI), during the inspection. others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be o while the DCM orientation must be renewed every 3 years.		Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so Pis and/or LACs must check the Personnel tab ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.) in ACAP regularly to	
DOCUMENTATIONS and IACUC POSTINGS		å e a a a b b b b b b
Emergency, weekend, and holiday contact information visibly posted in animal housing area	antari	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers All personnel handling animals in the lab trained/certified and on application	JUSIEU	Acceptable Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?		Acceptable
Ther		N/A
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, th IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	ey are posted to the main	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/policies-procedures/		
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some pr are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in t HEALTH AND SAFETY		
Bas cylinders immobilized; Evewash check documented/dust caps in place		Acceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight		Acceptable
inspectors informed the LAC that the lab's vaporizer must calibrated at least bi-annually and may be calibrated during the annual app DCM veterinary services for Eagle Eye Calibration. This option is less expensive than an individual appointment and usually occurs i Please look for emails from the NLAC listserv or contact DCM Vet Services regarding the DCM scheduled appointment.		,
Proper sharps disposal; Current copy of Needle Safety in Animal Studies posted		Acceptable
roper carcass disposal/hazardous waste disposal (especially hazard contaminated)		N/A
nimal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119		Acceptable
Varning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)		Acceptable
chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?		N/A
Review of chemical hazard forms by laboratory personnel before initial use		N/A
Other		N/A
ANIMAL CARE		
Does the lab know how to report animal health issues to DCM?		N/A
USDA regulated species, are there clinical records for individual animals?		N/A
malgesia/anesthesia use as described in approved ACAP	ta ale ann (a da ann ale	N/A
f euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method too	is snarp/adequate	N/A
/leans to track animal usage Experimental Monitoring Documentation (weight loss, tumor size, etc.)		Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.) Foe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)		N/A N/A
Discussion (max day 10, max 4 loes, 2 loes per loot (not the dewolaw), approved in ACAP) Dither		N/A
AGENTS ADMINISTERED		1977
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)		N/A
ribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Sta	andard?	N/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention		N/A
Proper Controlled Substance Storage and Records; double lock, running balance		N/A
s the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked	appropriately)	Acceptable
o die de land en		N/A
PHYSICAL PLANT- Lab Space		
npervious surfaces		Acceptable
General cleanliness		Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning;	Are they on the	Acceptable
DCM biological monitoring schedule?		N1/A
746 av		N/A
SURGICAL PROCEDURES: General Considerations		NI/Δ
Other SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (phys according to the Guide	ically or otherwise)	N/A N/A

Interior surfaces smooth and impervious to moisture	N/A	
Fixed equipment is sanitizable	N/A	
Other	N/A	
8. SURGICAL PROCEDURES: Anesthesia		
Adequate surgical records of anesthesia and preoperative care	N/A	
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A	
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	N/A	
Procedures for administering and monitoring analgesia (survival surgery)	N/A	
Other	N/A	
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures		
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	N/A	
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	N/A	
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A	
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	N/A	
Closure method	N/A	
Other	N/A	
£		

1: Inspection D Inspectors	ate: 09/24/2019
ispection ID 12152	
spection Type Semiannual	
b Coordinators	
ficiency Count: 0 Inspection Co	omments: 3
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	A a a a más inte
Summary Conducted Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. was very thorough in answering questions and providing information related to the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Har 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. Red check marks indicate the person is due for recertification.	,
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all applicable protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal activity in these spaces.	1
According to ., all future animal work will be conducted in the DCM facilities rather than lab space. This practice alleviates the requirement for a semiannual inspection of your lab space so we are changing you over to a yearly informational inspection schedule instead. If the lab begins performing surgeries or other procedures within the lab space, we must be contacted so that we can visit the space semiannually. 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/lacuc/index.htm).	
DOCUMENTATIONS and IACUC 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	Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?	Acceptable
Other	N/A
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; Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal/hazardous waste 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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?	Acceptable
Review of chemical hazard forms by laboratory personnel before initial use Other	Acceptable N/A
ANIMAL CARE	WA.
Does the lab know how to report animal health issues to DCM?	Acceptable
If USDA regulated species, are there clinical records for individual animals?	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools sharp/adequat	
Means to track animal usage	Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)	Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)	N/A
Other	N/A
AGENTS ADMINISTERED	
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Acceptable
	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	Acceptable
	N/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention	19/29
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance	Acceptable
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance	
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriately) Other	Acceptable
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriately) Other PHYSICAL PLANT- Lab Space	Acceptable
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriately) Other PHYSICAL PLANT- Lab Space Impervious surfaces	Acceptable N/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriately) Other PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on the	Acceptable N/A Acceptable
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriately) Other PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on the DCM biological monitoring schedule?	Acceptable N/A Acceptable Acceptable
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriately) Other PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on the DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations	Acceptable N/A Acceptable Acceptable N/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriately) Other PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on the DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery)	Acceptable N/A Acceptable Acceptable N/A N/A Acceptable
PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on the DCM biological monitoring schedule?	Acceptable N/A Acceptable Acceptable N/A N/A Acceptable

Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care Surgical logs were well-maintained by the lab. Inspectors noted that one checkbox for "new or sterilized instruments between animals" was checked. In order for this box to be checked, please ensure that all instruments that touch the animals are new or appropriately sterilized.	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area Inspectors were informed that forceps used to stabilize the head during surgery were rinsed with alcohol and PBS between animals. Alcohol is a disinfectant but not a sterilant. Please consult with a DCM veterinarian regarding whether a hot bead sterilizer is necessary, or if alcohol and PBS is sufficient, between surgeries due to the minimal contact the forceps make with each animal. Also, please update IACUC with their response.	Acceptable
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	Acceptable
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable
Closure method	Acceptable
Other	N/A

Report Date: 09/25/2019

PI PID	Inspection Date: nspectors	07/31/2019
nspection ID 12154		
nspection Type Semiannual		
ab Coordinators		
Deficiency Count: 0	nspection Commer	nts: 5
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted		Acceptable
Inspectors spoke with is the Principal Investigator, during the inspection. All animal handlers and others exposed to should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM or 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 i ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	in ACAP regularly to	
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 po	osted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches	s 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, the IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	y are posted to the main	
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 prir are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in he		
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal	15 5	Acceptable
L 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) Inspectors noted outdated contact information on warning sign located at the entrance to Marsico 6229. An editable PDF can be found page of the lab's online lab safety plan, please update information and replace old signage.	l on the "Room Use"	Acceptable
Cage side chemical hazard identification training		N/A
Review of chemical hazard forms by laboratory personnel before initial use		Acceptable
I. 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
		No Deficiency
MONITORING DOCUMENTATION (weight, drugs, post op care, etc) Toe Pinch was not being documented on current surgery records. Please refer to the following link for a copy of a suggested drug log accounting for controlled drug usage: <u>https://research.unc.edu/files/2012/11/Drug-Log-Template.pdf</u>	to be used when	
Toe Pinch was not being documented on current surgery records. Please refer to the following link for a copy of a suggested drug log	to be used when	N/A
Toe Pinch was not being documented on current surgery records. Please refer to the following link for a copy of a suggested drug log accounting for controlled drug usage: <u>https://research.unc.edu/files/2012/11/Drug-Log-Template.pdf</u> Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	to be used when	i.
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Page 1 of 2

Report Date: 08/06/2019

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
	N/A



	tion Date: 04/16/2019
I PID Inspection ID 12156	tors
nspection Type Semiannual	
ab Coordinators	
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 lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must l renewed every 3 years.	in the
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. Red check marks indicate the person is due for recertification.	2
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 IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable main
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 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.	they
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer reg/c	Acceptable
unless USDA or DoD/VA	e i un un de geninnen del 2 han
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	
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
S. PHYSICAL PLANT	λ1/Δ
Impervious surfaces	N/A N/A
General cleanliness	N/A N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
7. SURGICAL PROCEDURES: General Considerations	N/A
Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwis according to the Guide	
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
B. SURGICAL PROCEDURES: Anesthesia	13075

Report Date: 04/18/2019	
12156	

	6 CT 2 T
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

	Inspection	1 Date: 05/20/201
nspection ID 12159	nohermis	>
nspection Type Semiannual		
ab Coordinators		
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with, the Laboratory Animal Coordinator (LAC), during the inspections of both Marsico animal facility procedural space USDA records, as well as lab space for rodent surgical procedures.		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 completed only once, while the DCM orientation must be renewed every 3 years.	d to be	
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 re		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 IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/lacuc/	•	1000200000
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, t	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 Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research		Acceptable
L 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.	1	No 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		Acceptable
Review of chemical hazard forms by laboratory personnel before initial use		Acceptable
I 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)		V/A
S AGENTS ADMINISTERED		
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropria	atelv) /	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
PHYSICAL PLANT	,	
Impervious surfaces	1	Acceptable
General cleanliness		Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning		V/A
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 other according to the Guide	,	Acceptable
Interior surfaces smooth and impervious to moisture		Acceptable
Fixed equipment is sanitizable	ł	Acceptable
3. SURGICAL PROCEDURES: Anesthesia		
	į	Acceptable
SURGICAL PROCEDURES: Anesthesia		Acceptable 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

	nspection Date: 07/30	//201
PID Instantion ID 12173	ispectors	
nspection Type Semiannual		
ab Coordinators		
Deficiency Count: 0	spection Comments: 6	
. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with , the Laboratory Animal Coordinator (LAC), and the individual now responsible for working to lab and DCM to provide husbandry during the inspection. All animal handlers and others exposed to animals in the lab should update the A 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 AC ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	CAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to <u>lacuc@med.unc.edu</u> with al protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further ar these spaces.		
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 poster	d Acceptable	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no unless USDA or DoD/VA	longer req'd Acceptable	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal rese The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are IACUC webpage under 'important Notices' for approximately six months: <u>https://research.unc.edu/lacuc/</u>		
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard co		
3. HEALTH AND SAFETY	L 111	
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	Acceptable	
Proper carcass disposal (especially hazard contaminated) Carcasses are frozen and then autoclaved for 8 hours before providing to DCM for incineration.	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	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 a		
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable	
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standar		
Proper Controlled Substance Storage and Records; double lock	Acceptable	
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute interven	ntion Acceptable	
3. PHYSICAL PLANT	••••	
Impervious surfaces Did not view Satellite space. Record review only.	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 according to the Guide	y or otherwise) N/A	
Interior surfaces smooth and impervious to moisture	N/A	
Fixed equipment is sanitizable	N/A	
3. SURGICAL PROCEDURES: Anesthesia		

Page 1 of 2

Report Date: 07/31/2019



Adequate records of anesthesia and preoperative care	
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
	IN/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	N/A
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	
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) Satellite facility not inspected. Records review only.	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?	Acceptable
Pest control (frequency, effectiveness)	N/A
Sanitation schedule (daily/weekly/monthly/annually) maintained Racks are sanitized only every 3-4 years when facility is taken down for cleaning and maintenance. This is an exception to the standard DCM sanitation schedule for rack sanitation every 6 months and should be noted in the Program Description and also endorsed by the IACUC.	No Deficiency
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

	Inspection Date:	09/19/2019
I PID Ispection ID 12198	Inspectors	
ispection Type Semiannual		
ab Coordinators		
Deficiency Count: 0	Inspection Comments	: 3
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with, a member of the lab, during the inspection. All animal handlers and others exposed to anima the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation may years.	is in the lab should update	cceptable
- Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel to ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ab in ACAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.ed protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to fi these spaces.	u with all applicable urther animal activity in	
2. DOCUMENTATIONS and IACUC POSTINGS		
Emergency, weekend, and holiday contact information visibly posted in animal housing area	A	cceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers	posted A	cceptable
All personnel handling animals in the lab trained/certified and on application	A	cceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?		cceptable
Other	N	/A
. HEALTH AND SAFETY		
Gas cylinders immobilized; Eyewash check documented/dust caps in place		cceptable
Procedures for using/scavenging volatile anesthetics; check for Fair can weight		cceptable
Proper sharps disposal; Current copy of Needle Safety in Animal Studies posted		cceptable
Proper carcass disposal/hazardous waste disposal (especially hazard contaminated)		cceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119		cceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)		cceptable
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?		/A
Review of chemical hazard forms by laboratory personnel before initial use		/A
Other	N	/A
. ANIMAL CARE	٨	nanúnbia
Does the lab know how to report animal health issues to DCM?		cceptable /A
If USDA regulated species, are there clinical records for individual animals? Analgesia/anesthesia use as described in approved ACAP		/A
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method to		cceptable cceptable
Means to track animal usage		cceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)		cceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)		/A
Other		/A
AGENTS ADMINISTERED		
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Δ	cceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of S		/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention		cceptable
Proper Controlled Substance Storage and Records; double lock, running balance		cceptable
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marke		cceptable
Other	•••••	/A
PHYSICAL PLANT- Lab Space		
Impervious surfaces	A	cceptable
General cleanliness		cceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning DCM biological monitoring schedule?	or' o	/A
Other	N	/A
SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery)		cceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (phy according to the Guide	. ,	cceptable
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure		cceptable
Interior surfaces smooth and impervious to moisture		cceptable
Fixed equipment is sanitizable Other		cceptable /A



	Adequate surgical records of anesthesia and preoperative care Surgical logs were very organized as the lab utilized a customized version of the IACUC template to suit their needs.	Acceptable
	Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
	Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
	Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
	Other Inspectors informed the lab that the vaporizer may be calibrated during the annual appointment scheduled by DCM veterinary services for Eagle Eye Calibration. This option is less expensive than an individual appointment and usually occurs in May-June of each year. Please look for emails from the NLAC listserv or contact DCM Vet Services regarding the DCM scheduled appointment.	Acceptable
	9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
	Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
	Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	Acceptable
	Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
-	Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable
	Closure method	Acceptable
	Other	N/A
3 –		88

PI PID Inspecto	on Date: 05/03/201
PI PID Inspecto Inspection ID 293	015
Inspection Type Semiannual with	
rioceulai	
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 survival Mandibal Surgical Model as described in approved protocol #18-194 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
According to the LAC, all future animal work will be conducted in the DCM facilities, rather than lab space. This practice alleviates the requirement for 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 (annually if any surgery is performed, regardless of location). I 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.	f
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 The eyewash must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks.	No Deficiency
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)	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) 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) 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 animal	No Deficiency s.
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
5. 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	

Obtained by Rise for Animals. Uploaded 07/05/2020

UC Inspections Details Report	Report Date.
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) https://research.unc.edu/files/2017/02/UNC-IACUC-Rodent-Anesthesia-Analgesia-Procedure-Record.pdf	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) The IACUC has instituted new guidelines in for post-operative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analgesi 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.	Acceptable 3
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	
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: 04/26/2019
nspection ID 11938	Inspectors
Inspection Type Semiannual with	
Pioceutiai	
_ab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	A
Summary Conducted This inspection report serves as both the Semiannual and Procedural Observation report. During the observation, was very knowledge able to describe non-survival IVC Blood Draw as described in approved protocol #18-075 without the use of a live animal. The inspectors did not fin deficiencies to report, however suggestions for improvement are included in this report. The next procedural observation will not be required from laboratory for three years or when the person we observed leaves the laboratory whichever happens first.	nd any
2. DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and holiday contact information visibly posted in animal housing area 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 IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/lacuc/</u>	Acceptable Acceptable to the main
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the second	he lab.
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer unless USDA or DoD/VA	req'd 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
I 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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropr	
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
). PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
/ 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 oth according to the Guide	erwise) Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
3. 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	·

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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



	Inspection Date: 04/10/20 Inspectors
Inspection ID 11958	
nspection Type Semiannual with Procedural	
Lab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with the PI during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Handler I annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	Acceptable form
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 regule ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	arly to
2. DOCUMENTATIONS and POSTINGS	A
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 i 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 IACUC webpage under 'important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	
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, are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by th	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research This inspection report serves as both the Semiannual and Procedural Observation report. During the observation, was very knowledgeat able to describe non-survival tracheostomy as described in protocol # 16-326 without the use of a live animal. The inspectors did not find any deficie report. The next procedural observation will not be required from the laboratory for three years.	
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 appropri	
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
5. 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 othe according to the Guide	
Interior surfaces smooth and impervious to moisture	Acceptable mals. Uploaded 07/05

	לעדר
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

Obtained by Rise for Animals. Uploaded 07/05/2020

Report Date: 04/12/2019



PI: PI PID		ion Date: 04/18/20
PLPID Inspection ID 1196	NA Inspect	us
Som	iannual with	
	edural	
.ab Coordinators		
	IF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with the lab should update the be renewed every 3 years	, the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in e Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must s.	Acceptable
	r only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to rs are up to date on all three certifications. Red check marks indicate the person is due for recertification.	
able to describe survival to report, however sugge	erves as both the Semiannual and Procedural Observation report. During the observation, was very knowledgeable and Cannula Implantation as described in protocol #19-016 without the use of a live animal. The inspectors did not find any deficiencies estions for improvement are included in this report. The next procedural observation will not be required from the laboratory for three n we observed leaves the laboratory whichever happens first.	
2 DOCUMENTATIONS	and POSTINGS	
The IACUC creates, revie	, and holiday contact information visibly posted in animal housing area aws and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are posted to the main mportant Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable
All IACUC guidance docu https://research.unc.edu/	uments can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: /iacuc/policies-procedures/	
are updated on a regular	laboratory references the most recent versions of these documents on our website, and if you have some printed in the lab, that they basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the lab.	
	ting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	Acceptable
unless USDA or DoD/		Acceptable
	and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
HEALTH AND SAFE		
	ized; Eyewash check documented/dust caps in place ecked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks.	No Deficiency
	scavenging volatile anesthetics; check for Fair can weight	Acceptable
~	al, hazardous waste disposal	Acceptable
, , ,	e Safety in Animal Studies posted	Acceptable
	al (especially hazard contaminated)	Acceptable
•	tered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
	upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
	azard identification training	N/A
•	azard forms by laboratory personnel before initial use	Acceptable
ANIMAL CARE		мисериале
	ssues to Division of Comparative Medicine	Acceptable
	lividual animals (covered species)	N/A
	use as described in approved ACAP	Acceptable
-		•
	i as described in approved ACAP; tools sharp/adequate	Acceptable
	i usage/Euthanasia log MENTATION (weight, drugs, post op care, etc)	Acceptable
		Acceptable
	nax P10, 2 toes, approved in ACAP)	N/A
AGENTS ADMINIST		Agaaniahir
	nsuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acceptable
	erinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
	rtin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
	istance Storage and Records; double lock	Acceptable
	d for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable
PHYSICAL PLANT		6
Impervious surfaces		Acceptable
General cleanliness		Acceptable
	dition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
	DURES: General Considerations	
	iffic/contamination (survival surgery)	Acceptable
according to the Guide		Acceptable
	th and impervious to moisture	Acceptable
Fixed equipment is sa		Acceptable
	OURES: Anesthesia Obtained by Rise for Animals.	

CUC Inspections Details Report	1 18 6 1 1 9 6
Adequate records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?) 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 perfusion documentation.	No Deficiency Acceptable Acceptable Acceptable Acceptable Acceptable N/A Acceptable Acceptable Acceptable Acceptable Acceptable 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 N/A N/A N/A N/A N/A N/A N/A 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

	ection Date: 05/20/2019 ectors
nspection ID 11988	CCIUIS
nspection Type Semiannual with	
- Procedural	
ab Coordinators	
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 as able to describe non-survival perfusion as outlined in approved protocol #18-064 without the use of a live animal. The inspectors did not find any deficien 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.	
DOCUMENTATIONS and POSTINGS	
Emergency, weekend, and hollday 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 in IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable main
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 the 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	`
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
HEALTH AND SAFETY	Annewschle
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 Proper carcase disposal (carcased)	Acceptable
Proper carcass disposal (especially hazard contaminated) Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable 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
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
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
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
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	
Interior surfaces smooth and impervious to moisture	N/A
	N/A
SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
I. SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
I. SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care	,



IACUC Inspections Details Repo	317
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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: Inspect PI PID Inspect	ion Date: 05/23/2019
Inspection ID 11990	015
Inspection Type Semiannual with Procedural Lab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation mu 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. Red 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 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 r IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	
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 t 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	Appanishin
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Acceptable Acceptable
Procedures for daling/scavenging volatile anesthetics, check for Pair can weight 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?	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	
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
8: SURGICAL PROCEDURES: Anesthesia	

Report Date: 0.5/23/2019

Adequate records of anesthesia and preoperative care	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 protocol # 18-236 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.	ласране
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
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
0. 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
1. 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
Equipment propeny sanitized, separation based on nearin status	
Tank allows for undisturbed observation, enrichment present	N/A

PI:		Inspection Date:	06/26/2019
PI PID		Inspectors	
•	2015		
88.900 8.900 8.88.98.5 9.47.8.98.0	iemiannual with rocedural		
Lab Coordinators			
Deficiency Count: 0		Inspection Comm	ents: 8
1. BRIEF SUMMARY	OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducte Inspectors spoke with the lab should update be renewed every 3 ye), the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others ex the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DC		Acceptable
	iow only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in diers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ACAP regularly to	
	new animal spaces are added to the protocol as soon as possible by sending an email to <u>iacuc@med.unc.edu</u> with I spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further		
2. DOCUMENTATIO	NS and POSTINGS		
Emergency, weeker	nd, and holiday contact information visibly posted in animal housing area		Acceptable
Current copy of Rep	porting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers pos	ted	Acceptable
All personnel handli	ng animals in the lab trained, certified and on application; Annual Renewals & Lit Searches n	io longer req'd	Acceptable
	D/VA eviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they a ir 'important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	are posted to the main	
	ocuments can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: dufacuc/policies-procedures/		
	ur laboratory references the most recent versions of these documents on our website, and if you have some printe Ilar basis. We recommend checking the website at least semiannually to update revised policies maintained in har		
	d certify lab members in techniques for which she has a Proficiency rating of 1. Please reference the following link http://research.unc.edu/files/2012/11/CCM1_030728.pdf	for instructions on	
Approved applicatio	ns and amendments available to and reviewed by laboratory personnel conducting animal re	search	Acceptable
3. HEALTH AND SAF			
			Acceptable
Procedures for usin The LAC had a questi canisters with the isof	g/scavenging volatile anesthetics; check for Fair can weight on about the need for both snorkel scavenging units which scavenge volatile anesthetics directly out of the room p flurane vaporizer. The inspectors indicated that the use of both may be redundant; however, to ensure adequate so Brennan of EHS to determine how to have the space assessed.		Acceptable
Proper sharps dispo	osal, hazardous waste disposal		Acceptable
Current copy of Nee	edle Safety in Animal Studies posted		Acceptable
Proper carcass disp	osal (especially hazard contaminated)		Acceptable
Animal handlers reg	stered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119		Acceptable
Warning signs visibl	le upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)		N/A
	hazard identification training		Acceptable
	hazard forms by laboratory personnel before initial use		Acceptable
4. ANIMAL CARE	,		,
	h issues to Division of Comparative Medicine		Acceptable
Clinical records for i	individual animals (covered species)		N/A
	ia use as described in approved ACAP		Acceptable
-	ed as described in approved ACAP; tools sharp/adequate		Acceptable
•	nal usage/Euthanasia log		Acceptable
	CUMENTATION (weight, drugs, post op care, etc)		Acceptable
	(max P10, 2 toes, approved in ACAP)		N/A
5 AGENTS ADMINIS			
	r ensuring drugs and biological are within expiration date (expired drugs separated or marked	d appropriately)	Acceptable
	reterinary grade agents used (exception required for Non-pharmaceutical grade)		Acceptable
	vertin): preparation (including sterilization), storage, and proper maintenance- aware of Stanc	lard?	N/A
	ubstance Storage and Records; double lock		N/A
	ned for agents used to administer anesthesia, analgesia and for euthanasia and acute interve	ention	Acceptable
6 PHYSICAL PLANT			`
Impervious surfaces			Acceptable
General cleanliness			Acceptable
	ondition of behavioral boxes/secondary enclosures, method and agents used for cleaning		N/A
	EDURES General Considerations		

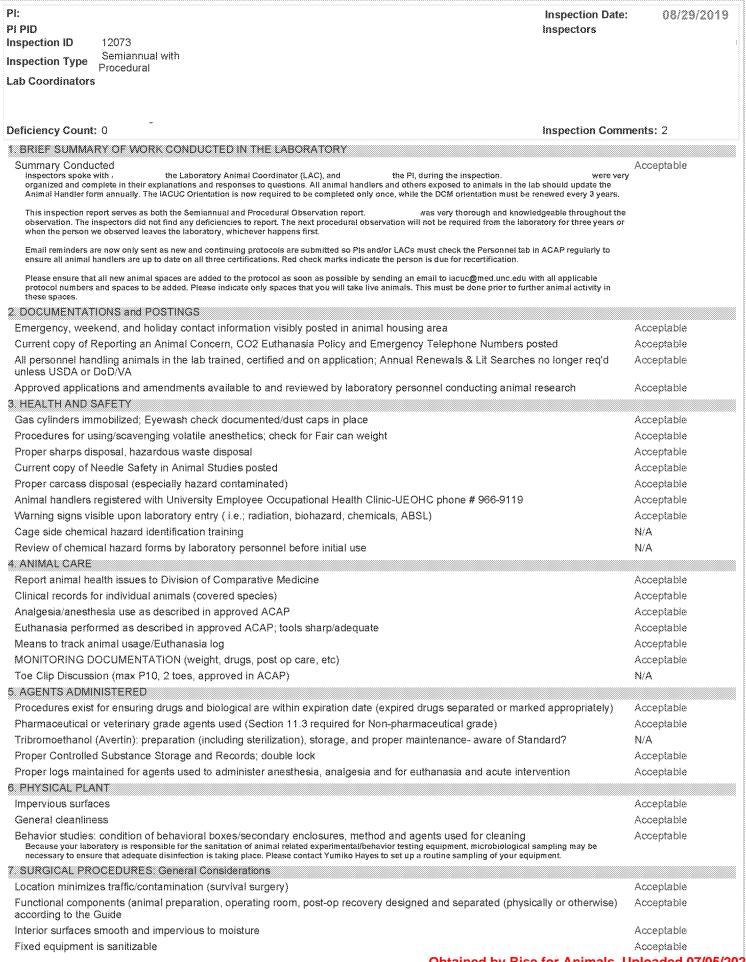
Report Date: 06/27/2019
12015

Location minimizes traffic/contamination (survival surgery) This inspection report serves as both the Semiannual and Procedural Observation report. During the observation, was very knowledgeable and able to describe survival intracranial injection procedure 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 procedure biservation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever happens first.	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide The dedicated surgical area was in exemplary condition and is an excellent space in which to conduct survival and non-survival surgical procedures in rodents.	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 Please review the Standard for Rodent Survival Surgery to ensure that serial survival surgeries are performed according to the standard. Although the standard does not indicate a maximum number of surgeries conducted in series with the same instruments, it contains helpful details about preferred methods and use of the bead sterilizer between surgeries.	No Deficiency
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time) Please review the Standard for Rodent Survival Surgeries for acceptable cold sterilization agents and appropriate contact time for sterilizing the fragile injection needles to ensure IACUC standards are being followed.	No Deficiency
Use of sterile gloves and drapes The tips only surgical method was employed without the use of 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
	N/A N/A

	Inspection Date: 07/25/2019
I PID II Ispection ID 12056	nspectors
ab Coordinators	
eficiency Count: 0	nspection Comments: 2
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
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	d Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no l unless USDA or DoD/VA	ionger req'd Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal rese IN HEALTH AND SAFETY	arch Acceptable
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
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) Please ensure consistent use of pink post-operative cards after survival surgeries.	No Deficiency
Please add a column for toe pinch on the isoflurane record.	
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 a	ppropriately) 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 Standar	
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 intervent	tion Acceptable
I. PHYSICAL PLANT	
Impervious surfaces	Acceptable
,	,
General cleanliness	Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	,
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations	Acceptable N/A
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically	Acceptable N/A Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide	Acceptable N/A Acceptable or otherwise) Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture	Acceptable N/A Acceptable or otherwise) Acceptable Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable	Acceptable N/A Acceptable or otherwise) Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia	Acceptable N/A or otherwise) Acceptable Acceptable Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care	Acceptable N/A Acceptable Acceptable Acceptable Acceptable Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable N/A Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery)	Acceptable N/A Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES. General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES. Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable N/A Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	Acceptable N/A Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable N/A Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	Acceptable N/A Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	Acceptable N/A Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable Acceptable

Report Date: 07/25/2019

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 Inspectors identified tissue adhesive with a past expiration date. 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.	No Deficiency
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



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
3	



PI: PI PID	Inspection Date: Inspectors	08/15/2019
Inspection ID 12093	mspectors	
Inspection Type Semiannual with Procedural		
Lab Coordinators Deficiency Count: 1	Inspection Comm	ients: 5
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	····	
Summary Conducted Inspectors spoke with [redacted] the Principal Investigator (PI), during the inspection. All animal handlers and others exposed to update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orien every 3 years.		Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personn ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification		
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to iacuc@med.unc protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior t these spaces.		
This inspection report serves as both the Semiannual and Procedural Observation report. During the observation, Dr. [redacted] cochiear surgical procedure performed by [redacted] in protocol #[redacted] without the use of a live animal. The next procedu 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 Number	ers posted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Sear unless USDA or DoD/VA	rches no longer req'd	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting an The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approve IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/		Acceptable
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 son are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintaine		
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 # 966-91	19	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) A urethane hazard posting and handling instructions was posted in the procedure area near the fume hood.		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)		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		10 B 6 1
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or In Glaxo 142, lidocaine, which expired on 4/30/19, was used past its expiration date as an adjunct supplemental agent in 11 gerb procedure, lidocaine was administered prior to non-survival surgery and in conjunction with the general anesthetics Nembutal a animals were fully anesthetized throughout the acute terminal procedures as indicated by stable vital parameters and persistent toe pinch, expired pharmaceuticals may not be used for surgery and are contrary to accepted veterinary practice. The investiga laboratory's practices for ensuring that expired medications providing anesthesia, analgesia, or euthanasia are not used in anim "expired" and/or separated from other medications and medical supplies.)	ils. For the acute terminal and urethane. Although t lack of withdrawal response to tor should review the	Minor Deficiency Notification Sent
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) Non-pharmaceutical grade urethane is used as described in the approved protocol.		Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware o	f 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

Obtained by Rise for Animals. Uploaded 07/05/2020

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

	Inspection Date:	08/16/2019
PI PID Inspection ID 12102	Inspectors	
Somiannual with		
nspection Type Procedural		
ab Coordinators		
Deficiency Count: 0	Inspection Comm	ents: 7
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with a lab member, and the Laboratory Animal Coordinators (LAC), and Jab members, during the inspection. All animal handlers and others exposed to animals in the lab should update th annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years		Acceptable
This inspection report serves as both the Semiannual and Procedural Observation report. During the observation, was very kn demonstrate tumor resection surgery as described in protocol #18-082 without the use of a live animal. The inspectors did not find an The next procedural observation will not be required from the laboratory for three years or when the person we observed leaves the la happens first.		
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	in ACAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu w protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to furth these spaces.		
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 policy	osted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches 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, the		Acceptable
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/lacuc/policies-procedures/ Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some prin	nted 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 h		
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal 3. HEALTH AND SAFETY	research	Acceptable
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		N/A
I. 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 inspectors reviewed humane endpoint records to ensure animals were not allowed to exceed the humane endpoints as described in the and body weight data from the animal handlers indicated animals were monitored and were not allowed to exceed humane endpoints.	ne protocol. Tumor size	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
AGENTS ADMINISTERED		
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or mark	ed 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 Sta	ndard?	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 intel	rvention	Acceptable
3. PHYSICAL PLANT		Acceptable
5 PHYSICAL PLANT Impervious surfaces		C. N. GARGER, M. S. C. S. C
		•
Impervious surfaces		Acceptable N/A

Report Date: 08/19/2019

IACUC	Inspections	Details	Report
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	1 2
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 Inspectors observed that anesthesia records did not include a column to indicate that the animal reached a surgical plane of anesthesia prior to the start of the procedure (i.e. lack of toe pinch reflex). Laboratories must document that all animals have reached the appropriate surgical plane of anesthesia. Please update anesthesia records to include this information. A template is available here:	No Deficiency
https://research.unc.edu/files/2012/11/Drug-Log-Template.pdf	
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery) The IACUC has instituted new guidelines in for post-operative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analgesia Card is required for all cages of animals receiving analgesia and/or post-operative monitoring. The cards are available in the DCM facilities. If the Post-Procedural Monitoring card will be used to document post-operative monitoring records, please save them and they should be readily available to the IACUC during laboratory inspections.	Acceptable a
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	
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) Inspectors were informed that all necessary surgical supplies are autoclaved.	Acceptable
Use of sterile gloves and drapes Inspectors noted during the procedural observation that the sterile gloves were past their expiration date. The expired gloves were not used for survival surgery. Expired items cannot be used in a survival surgery. Please ensure that all surgical supplies are in-date prior to use.	No Deficiency
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
Equipment propeny samilled, separation based on nearch status	N1/A
Tank allows for undisturbed observation, enrichment present	N/A
	N/A N/A

: PID	Inspection Date: Inspectors	09/24/2019
spection ID 12129	0103000010	
spection Type Semiannual with		
riocedulai		
ab Coordinators		
eficiency Count: 0	Inspection Comme	nts: 1
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with, the Laboratory Animal Coordinator (LAC), and, the PI, during the inspection. was was helpful in guiding inspectors through the lab space. All animal handlers and others exposed to animals in the lab should update annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 year	very organized, which the Animal Handler form	Acceptable
This inspection report serves as both the Semiannual and Procedural Observation report. During the observation, was very kno demonstrated the tissue collection procedure as described in protocol #19-151. The inspectors did not find any deficiencies to report observation will not be required from the laboratory for three years or when the person we observed leaves the laboratory whichever		
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	in ACAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu v protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to furt these spaces.		
DOCUMENTATIONS and IACUC 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 p		Acceptable
All personnel handling animals in the lab trained/certified and on application		Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?		Acceptable
Diher		N/A
HEALTH AND SAFETY		Nanan Makila
Gas cylinders immobilized; Eyewash check documented/dust caps in place Procedures for using/scavenging volatile anesthetics; check for Fair can weight		Acceptable
		Acceptable
Proper sharps disposal; Current copy of Needle Safety in Animal Studies posted Proper carcass disposal/hazardous waste disposal (especially hazard contaminated)		Acceptable 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
f chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?		V/A
Review of chemical hazard forms by laboratory personnel before initial use		N/A
Other		N/A
ANIMAL CARE		
Does the lab know how to report animal health issues to DCM?		Acceptable
f USDA regulated species, are there clinical records for individual animals?	I	N/A
Analgesia/anesthesia use as described in approved ACAP	,	Acceptable
f euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tool	Is sharp/adequate	Acceptable
Veans to track animal usage	:	Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)	,	Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)	ė	Acceptable
Other	ł	N/A
AGENTS ADMINISTERED		Anontohia
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Sta		Acceptable Acceptable
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention		Acceptable
Proper Controlled Substance Storage and Records; double lock, running balance		Acceptable
s the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked		Acceptable
o are no enorming anage and biological agente are within expiration date (expired arage oppliates of married D		N/A
PHYSICAL PLANT- Lab Space		
mpervious surfaces		Acceptable
General cleanliness		Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; DCM biological monitoring schedule?		N/A
Other	i	N/A
SURGICAL PROCEDURES: General Considerations		
_ocation minimizes traffic/contamination (survival surgery)	4	Acceptable
[–] unctional components (animal preparation, operating room, post-op recovery designed and separated (physi according to the Guide	ically or otherwise)	Acceptable



Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	N/A
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	N/A
Closure method	N/A
Other	N/A

Page 2 of 2

PI:		Inspection Date:	09/16/2019
PI PID		Inspectors	
8	12131		
52.9 C. 5.9 C. 5. 6 C. 5. 5. 5 C. 5. 6 C. 5. 7. 6 C. 5. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	Semiannual with Procedural		
Lab Coordinators			
Deficiency Count:	0	Inspection Commen	ts: 7
1. BRIEF SUMMAR	Y OF WORK CONDUCTED IN THE LABORATORY		
Summary Conduct Inspectors spoke wil in the lab should up must be renewed ev	th		Acceptable
It was discussed tha protocol.	t the current LAC, , will be leaving the lab. Please submit an amendment a soon as possible to add t	he new LAC to the	
approved protocol n	observation was included with this Semiannual inspection. Import 18-118. Important is appeared knowledgeable of the procedure and the inspectors had no significant su ext procedural will be required in three years or if the current surgeon leaves the laboratory.		
Email reminders are ensure all animal ha	now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel ta ndlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	b in ACAP regularly to	
protocol numbers ar these spaces.	II new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu nd spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to fu		
	DNS and IACUC POSTINGS		
	end, and holiday contact information visibly posted in animal housing area		Acceptable
Inspectors observed	porting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers I that Room 8061 had the appropriate signs posted (e.g. Reporting an Animal Concern, Emergency Telephone N gns in Room 8058. The most recent version of these documents can be obtained from our website at: edu/offices/iacuc.		No Deficiency
All personnel hand	ling animals in the lab trained/certified and on application		Acceptable
How are approved	applications and amendments available to and reviewed by laboratory personnel?		Acceptable
Other			N/A
3. HEALTH AND SA	IFETY		
	obilized; Eyewash check documented/dust caps in place		No Deficiency
Inspectors observed	I that the eye wash in Room 8061 was properly checked and flushed. The eye wash in Room 8058 was last check I must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these		,
This comment was p	previously made in the 9/21/2018 inspection report.		
Procedures for usi	ng/scavenging volatile anesthetics; check for Fair can weight		Acceptable
Inspectors did not o	posal; Current copy of Needle Safety in Animal Studies posted bserve the Needle Safety in Animal Studies sign in Room 8058. The sign was properly posted in Room 8061. The n be obtained from our website at: http://research.unc.edu/offices/iacuc.	most recent version of	No Deficiency
Laboratory personne bags to store carcas	posal/hazardous waste disposal (especially hazard contaminated) el were not certain where they obtained their carcass disposal bags. Inspectors discussed the use of transparer ises for disposal. These bags can be obtained through DCM, and should be used when disposing of carcasses a tion. Please see policy at the following URL:	t, non-PVC containing is all carcasses leave	No Deficiency
http://research.unc.e	du/files/2012/11/Disposal-of-Rodents-Carcasses-Policy.pdf		
Animal handlers re	gistered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119		Acceptable
Warning signs visit	ble upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)		Acceptable
If chemical/biologic	cal hazards in animal facility, using appropriate cage cards to identify hazards?		N/A
Review of chemica	I hazard forms by laboratory personnel before initial use		Acceptable
Other			N/A
4. ANIMAL CARE			
	how to report animal health issues to DCM?		Acceptable
	species, are there clinical records for individual animals?		N/A
v	sia use as described in approved ACAP		Acceptable
-	b space is euthanasia performed as described in approved protocol; secondary method to	ls sham/adequate	Acceptable
Means to track ani		ne energensegnane	Acceptable
	itoring Documentation (weight loss, tumor size, etc.)		
•			Acceptable
•	n (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)		N/A
Other			N/A
5. AGENTS ADMIN			A
	veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)		Acceptable
	Avertin): preparation (including sterilization), storage, and proper maintenance- aware of SI	andard?	Acceptable
•	intained for agents used for anesthesia, analgesia, euthanasia, and acute intervention		Acceptable
·	Substance Storage and Records; double lock, running balance		Acceptable
Inspectors observed	drugs and biological agents are within expiration date (expired drugs separated or marked I multiple tubes of eye lubricant with an expiration date of 8/2019. All materials used on animals must be discard pired-do not Use" or "For Acute Use Only" to avoid accidental use on animals.	l appropriately) ed after the expiration	No Deficiency
Other	Obtained by Dir	o for Animale II	Alfadad 07/05

University of North Carolina - Chapel Hill

Other

Obtained by Rise for Animals. Upleaded 07/05/2020

Report Date: 09/16/2019

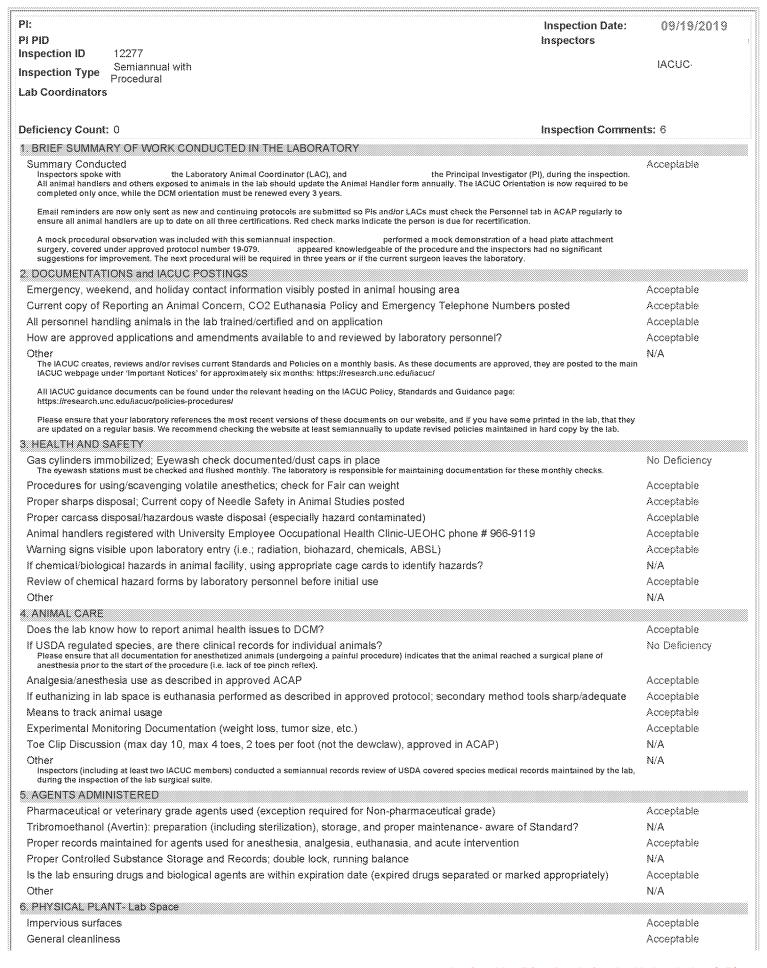
6. PHYSICAL PLANT- Lab Space	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on the DCM biological monitoring schedule?	N/A
Other	N/A
7. SURGICAL PROCEDURES: General Considerations	
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
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Other	N/A
9 SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	Acceptable
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable
Closure method	N/A
Other Inspectors observed nitrile gloves with expiration dates of 1/2016, 4/2017, and 7/2017. All materials used on animals must be discarded after the expiration date or labeled, "Expired-do not Use" or "For Acute Use Only" to avoid accidental use on animals.	No Deficiency

PI: PI PID	Inspection Date: Inspectors	09/17/2019
Inspection ID 12134		
Inspection Type Semiannual with Procedural		
Lab Coordinators Deficiency Count: 0	Inspection Commer	its: 3
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with I the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and othe the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the renewed every 3 years.		Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel to ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ab in ACAP regularly to	
A mock procedural observation was included with this semi-annual inspection. I performed a mock demonstration of tissue harvest procedure, covered under approved protocol number 18-073. appeared knowledgeable of the procedure significant suggestions for improvement. The next procedural will be required in three years or if the current surgeon leaves the lab	and the inspectors had no	
2. DOCUMENTATIONS and IACUC 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	sposted	Acceptable
All personnel handling animals in the lab trained/certified and on application		Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel? Other		Acceptable N/A
The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/lacuc/	they are posted to the main	1N/ <i>P</i> A
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in		
3. HEALTH AND SAFETY		N
Gas cylinders immobilized; Eyewash check documented/dust caps in place The eyewash must be checked and flushed monthly (last checked 7/21/19). The laboratory is responsible for maintaining document checks.	tation for these monthly	No Deficiency
Inspectors noted an eyewash where the protective caps were not covering the eyewash. Please make sure that eyewashes are clea so that debris does not build up and the eyewash can be used in case of emergency.	in and covers are in place	
Procedures for using/scavenging volatile anesthetics; check for Fair can weight		Acceptable
Proper sharps disposal; Current copy of Needle Safety in Animal Studies posted		Acceptable
Proper carcass disposal/hazardous waste 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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?		Acceptable
Review of chemical hazard forms by laboratory personnel before initial use		Acceptable
Other		N/A
4. ANIMAL CARE		
Does the lab know how to report animal health issues to DCM?		Acceptable
If USDA regulated species, are there clinical records for individual animals?		N/A
Analgesia/anesthesia use as described in approved ACAP		Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method to	ools sharp/adequate	Acceptable
Means to track animal usage		Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)		Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)		Acceptable
Other		N/A
5. AGENTS ADMINISTERED		-
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)		Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of S	Standard?	Acceptable
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention		Acceptable
Proper Controlled Substance Storage and Records; double lock, running balance		N/A
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marke	d appropriately)	Acceptable
Other		N/A
6. PHYSICAL PLANT- Lab Space		
Impervious surfaces		Acceptable
General cleanliness		Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning DCM biological monitoring schedule?	g; Are they on the	N/A
Other		N/A

Report Date: 09/17/2019

I/A I/A I/A
I/A
I/A
\cceptable
\cceptable
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I/A
I/A
I/A
I/A





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Obtained by Rise for Animals. Uploaded 07/05/2020

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on the DCM biological monitoring schedule? 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. Yumiko Hayes-yhayes@med.unc.edu.	Acceptable
Other	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
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	Acceptable
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	Acceptable
Sterile Sutures; Wound Clips, Staples and/or Skin Glue	Acceptable
Other	N/A

	Inspection Date: 04/18/20
PI PID nspection ID 12063	Inspectors
nspection Type Satellite	
ab Coordinators	
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 an lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation 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 reguence all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	larly to
. 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 unless USDA or DoD/VA	req'd Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
I. 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
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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropr	iately) 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
I. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
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 oth according to the Guide	
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
. 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
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
a second se	N/A



ooo mapeaana waxana napor	120.
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?	Acceptable

I: Inspection Inspecti	on Date: 05/28/2019 rs
spection ID 12101	
spection Type Satellite	
ab Coordinators	
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. Red check marks indicate the person is due for recertification. 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 ma IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable
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 the	γ
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 explications and emendments quellable to and ravioused by leberatory personnal conducting eximal response	A man a wave to be
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research HEALTH AND SAFETY	Acceptable
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
roper carcass disposal (especially hazard contaminated)	Acceptable
nimal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Varning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Sage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
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
uthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Aeans to track animal usage/Euthanasia log	Acceptable
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Foe Clip Discussion (max P10, 2 toes, approved in ACAP)	N/A
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
ribromoethanol (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
PHYSICAL PLANT	
mpervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
SURGICAL PROCEDURES: General Considerations ocation 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
nterior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
	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

	pection Date: 05/28/2019 pectors
Inspection ID 12107	
Inspection Type Satellite Lab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors discussed the need to have the Laboratory Coordinator (LAC) for the lab present during the satellite inspection and during normal satellit operations. The LAC listed on the approved protocol is no longer with the lab, the new LAC will be , who the inspectors met with today submit an amendment as soon as possible to add to the protocol.	
The IACUC and the Office of Animal Care and Use expect that all comments and deficiencies, as well as pertinent items discussed during the inspect 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 c 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 Please update the Emergency Contact information on the laboratory refrigerator with the new LAC's information.	No Deficiency
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 IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable the main
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, i are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer ruless USDA or DoD/VA	
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) Inspectors noted outdated contact information on warning sign located at the entrance to MIRB 1120. An editable PDF can be found on the "Room U of the lab's online lab safety plan, please update information and replace old signage.	se" page
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 appropria	itely) 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
5. 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	A
Location minimizes traffic/contamination (survival surgery)	Acceptable
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or other according to the Guide	
Interior surfaces smooth and impervious to moisture	Acceptable
(Miles of a method second black of the second black of the	Acceptable
Fixed equipment is sanitizable	
Fixed equipment is sanitizable 3. SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care	Acceptable

Report Date: 0.5/29/2019

IACUC	Inspections	Details	Report
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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)	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?	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 12126	Inspection Date: 06/21/2019 Inspectors	
Inspection 10 12120 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 longe unless USDA or DoD/VA	er req'd Acceptable	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research 3. HEALTH AND SAFETY	n Acceptable	
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	
. 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	
AGENTS ADMINISTERED		
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appro	ppriately) 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	
PHYSICAL PLANT	0/5	
Impervious surfaces	N/A	
General cleanliness	N/A	
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A	
SURGICAL PROCEDURES: General Considerations	005	
Location minimizes traffic/contamination (survival surgery)	N/A	
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or o		
according to the Guide	6. V.S.	
*	N/A	
Interior surfaces smooth and impervious to moisture	N/A N/A	
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable		
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia		
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care	N/A N/A	
according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery)	N/A	
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery)	N/A N/A N/A	
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained)	N/A N/A N/A N/A	
nterior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	N/A N/A N/A N/A	
nterior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A N/A N/A N/A N/A N/A	
nterior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)	N/A N/A N/A N/A N/A N/A N/A	
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery	N/A N/A N/A N/A N/A N/A N/A N/A	
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A N/A N/A N/A N/A N/A N/A N/A N/A	
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time) Use of sterile gloves and drapes	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A N/A N/A N/A N/A N/A N/A N/A N/A	



Report Date: 06/04/2019
12126

Records of postoperative care including analgesia agents (all species)	N/A
10. SATELLITE FACILITIES	
Daily feed/water/observation-records maintained Please ensure the month and year are consistently written the daily logs.	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	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 12133	Inspection Date: Inspectors	06/27/2019
Inspection Type Satellite Lab Coordinators		
Deficiency Count: 1	Inspection Comm	ents: 15
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	•	
Summary Conducted Inspectors spoke with [redacted], the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others export lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCN renewed every 3 years.		Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ACAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to <u>iacuc@med.unc.edu</u> wi protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to furthe these spaces.		
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 po		Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches 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		Acceptable
IACUC webpage under 'important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u> 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 print are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in har		
As discussed, the LAC may train and certify lab members in techniques for which she has a Proficiency rating of 1. Please reference th instructions on certifying personnel: http://research.unc.edu/files/2012/11/CCM1_030728.pdf	e following link for	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal n 3 HEALTH AND SAFETY	esearch	Acceptable
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 Sharps containers in the satellite were beige and opaque and contained no labeling. These type of containers should comply with EHS containers holding needles and sharps. (From EHS website: White plastic sharps containers are recommended for accumulation and di syringes and needles and other metal sharps such as razor and scalpel blades. These are available from Fisher Scientific. These contai the ordinary trash for disposal.) For further information regarding proper labeling, please refer to the following URL. <u>https://ehs.unc.edu/files/2015/07/non_haz_needles_sharps.pdf</u>	isposal of hypodermic	No Deficiency
Current copy of Needle Safety in Animal Studies posted		Acceptable
Proper carcass disposal (especially hazard contaminated) Toads which have died and experienced deterioration of the carcass, leaving it unsuitable for necropsy, were disposed of along with th regular trash dumpster. Carcasses should not be placed in the dumpster. Instead, they should be placed in a non-PVC containing plast DCM and disposed of in a DCM carcass freezer.		Minor Deficiency
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		N/A
4. ANIMAL CARE		
Report animal health issues to Division of Comparative Medicine Animals should be euthanized according to the humane endpoints described in the approved protocol. If any animal exhibits the descr endpoints or fails to eat and there is a question of whether to euthanize, please contact DCM veterinary services and indicate that the m DCM is aware that the matter requires timely attention.		No Deficiency
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	d	Assessed
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marke Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) Please ensure that the newly purchased MS-222, which was 'in the field' at the time of the inspection, is pharmaceutical grade. Western pharmaceutical grade Tricaine (MS-222). If a pharmaceutical grade agent is not available, Section 11.3 of ACAP must be completed and	Chemical produces a	Acceptable No Deficiency
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Stan		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 interv	rention	Acceptable
6 PHYSICAL PLANT Obtained by Rise	for Animals. U	ploaded 07/05/202

Impervious surfaces	Acceptable
General cleanliness Please remove any unnecessary cardboard and paper products which may attract vermin and store only essential items within the satellite facility.	No Deficiency
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning Behavioral Room 439 Wilson contained a large plastic pool which, when operational, contained water and frogs. Speakers were placed on plastic containers positioned in the pool. There was no evidence of GFI plugs within the room. The placement of the speakers represented a possible electrical hazard. Please	No Deficiency
consult with EHS personnel to determine the optimal set-up to ensure personnel and animal safety.	
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)	No Deficiency
After surgical instruments are removed from the ethanol bath, lab members flame sterilize with a 115 hour candle purchased by the laboratory prior to performing toe clips. The candle container appeared to be made of glass. If so, this type of sterilizer represents a potential fire hazard if broken and EHS does not recommend using this type of sterilizer. Instead, EHS recommends several safer alternatives at the following link https://unc.policystat.com/policy/5854079/latest/	*
Information pertaining to flammable gases is found in Chapter 9 of the Biosafety Manual under EHS Policy - Flammable Gases in Biological Safety Cabinets at the very end of this large chapter.	
In addition, please consult with EHS about whether a fire extinguisher is needed in this are with use of the flame sterilizer.	
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	
10. SATELLITE FACILITIES Daily feed/water/observation-records maintained	
Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source)	Acceptable No Deficiency
Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Please remove the tags placed on animal container racks which have expired protocol numbers.	Acceptable No Deficiency
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Page 2 of 2

Pi: Ins	pection Date: 07/30/2019
	pectors
Inspection ID 12175	
Inspection Type Satellite Lab Coordinators	
	pection Comments: 14
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
Inspectors spoke with the Principal Investigator and Laboratory Animal Coordinator (LAC), during the i animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now rec completed only once, while the DCM orientation must be renewed every 3 years.	inspection. All
Email reminders are now only sent as new and continuing protocols are submitted so Pls and/or LACs must check the Personnel tab in ACAI ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	P regularly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all a protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further anir these spaces.	
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 lo unless USDA or DoD/VA	onger req'd Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal resea The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are p 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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard cop	
3 HEALTH AND SAFETY	
Gas cylinders immobilized; Eyewash check documented/dust caps in place Over the past 6 months, there have been periodic lapses in the monthly documentation for eyewash checks. Please ensure that the eyewash checked monthly for efficacy and documentation is recorded.	No Deficiency h stations are
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) Currently carcasses are stored in a freezer and then taken to the DCM Berryhill Hall facility for disposal. DCM and the PI will need to make ne proper carcass disposal when Berryhill is decommissioned.	Acceptable ew provisions for
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) BSL2 signage was posted on the exterior surface of the room door. The signage indicated the use of a hormone that was previously used in 1 Per Environment Health and Safety (EHS), BSL2 postings are tied into the Laboratory Safety Plan (LSP) and agents the laboratory has listed a specific rooms on the Schedule F. EHS checked the laboratory's LSP and the hormone agents are no longer listed. Therefore, please remove signage as it is no longer pertinent and is confusion. If the lab wishes to use this or other approved hazards in the future, please add them to and also post signage on the door of specific room.	as biohazards for e the BSL2
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use MS222 is used occasionally, although not recently. It is prepared under a chemical fume hood, buffered, and disposed (not stored) after the l	Acceptable batch is used.
4. ANIMAL CARE	
Report animal health issues to Division of Comparative Medicine The PI is working with veterinarian with DCM, to report and review and either treat or euthanize frogs with health issues. I has been hired by DCM to assist with husbandry and daily observations of these animals.	Acceptable In addition,
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) MS222 has not been utilized recently. If it is used in the future, records should be readily available in the satellite area for IACUC review.	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 ap	propriately) Acceptable
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) Atthough the agent was not available for inspection, the investigator indicated that Pharmaceutical Tricaine (MS222) was utilized in the past. utilized in animal again, please ensure that the agent is pharmaceutical grade. Western Chemical Inc. has distributed pharmaceutical grade 1 past and may still do so.	
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard	l? 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	on N/A
6. PHYSICAL PLANT	
Impervious surfaces	Acceptable
	Annantahla

General cleanliness

Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning The behavioral equipment in this space is on the DCM microbiological periodic assessment for sanitation efficacy of hand washed equipment.	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)	N/A
Disaster plan in place, annual review, updates since last provided to OACU The investigator indicated that the Disaster plan had recently been update. Please maintain a copy of the current disaster plan within the Satellite facility and provide DCM (Janet Steele) with an updated copy.	No Deficiency
Food stored in sealed container with date of expiration/milling/plan for interuption to supply	Acceptable
	Acceptable
Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or euthanize frogs with health issues. In addition, has been hired by DCM to assist with husbandry and daily observations of these animals.	
Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or	N/A
Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or euthanize frogs with health issues. In addition, has been hired by DCM to assist with husbandry and daily observations of these animals.	N/A Acceptable
Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or euthanize frogs with health issues. In addition, has been hired by DCM to assist with husbandry and daily observations of these animals. HVAC adequate and non-recirculating (suggest monitoring annually)	
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Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or euthanize frogs with health issues. In addition, has been hired by DCM to assist with husbandry and daily observations of these animals. HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained The lab has been working with DCM to run housing containers through the Berryhill Hall cage wash. Please work with DCM when Berryhill is	Acceptable Acceptable
Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or euthanize frogs with health issues. In addition, has been hired by DCM to assist with husbandry and daily observations of these animals. HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained The lab has been working with DCM to run housing containers through the Berryhill Hall cage wash. Please work with DCM when Berryhill is decommissioned to use a cage wash in another nearby facility. Veterinary contact info visably posted	Acceptable Acceptable Acceptable
Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or euthanize frogs with health issues. In addition, has been hired by DCM to assist with husbandry and daily observations of these animals. HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained The lab has been working with DCM to run housing containers through the Berryhill Hall cage wash. Please work with DCM when Berryhill is decommissioned to use a cage wash in another nearby facility. Veterinary contact info visably posted 11. AQUATIC FACILITIES	Acceptable Acceptable Acceptable
Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or euthanize frogs with health issues. In addition, has been hired by DCM to assist with husbandry and daily observations of these animals. HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained The lab has been working with DCM to run housing containers through the Berryhill Hall cage wash. Please work with DCM when Berryhill is decommissioned to use a cage wash in another nearby facility. Veterinary contact info visably posted	Acceptable Acceptable Acceptable Acceptable
Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or has been hired by DCM to assist with husbandry and daily observations of these animals. HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained The lab has been working with DCM to run housing containers through the Berryhill Hall cage wash. Please work with DCM when Berryhill is decommissioned to use a cage wash in another nearby facility. Veterinary contact info visably posted 11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing	Acceptable Acceptable Acceptable Acceptable
Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or has been hired by DCM to assist with husbandry and daily observations of these animals. HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained The lab has been working with DCM to run housing containers through the Berryhill Hall cage wash. Please work with DCM when Berryhill is decommissioned to use a cage wash in another nearby facility. Veterinary contact info visably posted MAQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	Acceptable Acceptable Acceptable Acceptable N/A N/A
Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or has been hired by DCM to assist with husbandry and daily observations of these animals. HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained The lab has been working with DCM to run housing containers through the Berryhill Hall cage wash. Please work with DCM when Berryhill is decommissioned to use a cage wash in another nearby facility. Veterinary contact info visably posted 11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded	Acceptable Acceptable Acceptable Acceptable N/A N/A N/A
Recent mortality was indicated on the daily records. The PI is working with i veterinarian with DCM, to report and review and either treat or has been hired by DCM to assist with husbandry and daily observations of these animals. HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained The lab has been working with DCM to run housing containers through the Berryhill Hall cage wash. Please work with DCM when Berryhill is decommissioned to use a cage wash in another nearby facility. Veterinary contact info visably posted 11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded Equipment properly sanitized, separation based on health status Tank allows for undisturbed observation, enrichment present	Acceptable Acceptable Acceptable N/A N/A N/A N/A
Recent mortality was indicated on the daily records. The PI is working with investigation of the provided of the daily records. The PI is working with investigation of the provided of the daily records. The PI is working with investigation of the provided of the provide	Acceptable Acceptable Acceptable N/A N/A N/A N/A N/A

Report Date: 07/31/2019

PI:	Inspection Date:	08/27/2019
	Inspectors	
Inspection ID 12238		
Inspection Type Satellite		
	Inspection Comm	ients: 8
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		Annentable
Summary Conducted During the inspection, IACUC inspectors met with as the Laboratory Animal Coordinator (LAC) had been called out unexpe was able to speak with later in the day to receive answers to outstanding questions. All animal handlers and others exposed i should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orie renewed every 3 years.	to animals in the lab	Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so Pis and/or LACs must check the Personnel tab in ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ACAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to furthe these spaces.		
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 pos	sted	Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches r unless USDA or DoD/VA	10 longer req'd	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal re The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/lacuc/		Acceptable
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 printe are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hare 		
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 isoflurane drop method was utilized to anesthetize mice in this area. The practice included isoflurane placed on gauze in a plastic canis tuperware container. The process was initiated under the hood, but then the plastic container with the anesthetized mouse was moved When isoflurane drop method is used on the open banch, scavenging may be insufficient, and the practice and ventilation should be as: Environment Health and Safety (EHS) to ensure personnel safety. Please contact EHS regarding the use of isoflurane (drop method) ou ensure that it is safe for personnel to use in this area.	to the bench top. sessed by	No Deficiency
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		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		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	d 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 Stand	dard?	N/A
		N/A
Proper Controlled Substance Storage and Records; double lock	ention	
Proper Controlled Substance Storage and Records; double lock Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute interv	SHOWH	
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute interv	chuon	
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute interv	chuon	Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute interv 6. PHYSICAL PLANT	Chion	Acceptable Acceptable
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute interv 6. PHYSICAL PLANT Impervious surfaces		
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute interv 6 PHYSICAL PLANT Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning		Acceptable

University of North Carolina - Chapel Hill

Obtained by Rise for Animals. Uploaded 07/05/2020

Report Date: 08/27/2019

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)	No Deficiency
The husbandry documentation indicated that there were temperatures above the upper limit of 72 during the months of June, July and August (e.g., 72.6 fo days, 74.6 for most of June.) In early summer, the LAC contacted facilities to assess the room temperature because, at the time, the room temperatures we dipping below the lower limit. If temperatures continue to fluctuate, it may be necessary to contact Facilities Services to adjust the HVAC/temperature. The have been no animal health issues associated with the warmer, room temperatures.	re
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) Please coordinate with Division of Comparative Medicine/Facilities Services to have the room air exchange assessed in early 2020 in time for the summer AAALAC accreditation site visit.	No Deficiency
Maintaining electronic census/ Aquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
A live trap for escaped mice was used and was monitored daily with appropriate documentation. Small cardboard traps were in place for insect pests.	,
Sanitation schedule (daily/weekly/monthly/annually) maintained Cage change within the satellite facility was described and met the conditions determined during the initial assessment conducted by Environment Health Safety (EHS) at the time of Satellite Facility approval. Recently, however, employees changing cages have used N-95 respirators in place of surgical masks The employees did not appear to have been fit tested for the use of respirators. Employees who wear N-95 masks, should be properly assessed and fit test by occupational health professionals. Please contact Cathy Brennan of EHS to have cage changing and N-95 mask practices assessed.	i.
The housing facility is on the schedule for biological monitoring and assessment of hand washed equipment.	
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

	Inspection Date:	08/16/2019
PI PID I Inspection ID 12239	nspectors	
Inspection Type Satellite		
Lab Coordinators		
Deficiency Count: 0	nspection Comm	ents: 3
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted inspectors spoke with the Laboratory Animal Coordinator (LAC) and a lab member, during the inspection. All animal hand exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed o DCM orientation must be renewed every 3 years.		Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so Pis and/or LACs must check the Personnel tab in A ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	CAP regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further these spaces.		
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 post		Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no	o 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 a IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	re posted to the main	
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/policies-procedures/		
Please ensure that your laboratory references the most recent versions of these documents on our website, and if you have some printer 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 re- 3. HEALTH AND SAFETY	search	Acceptable
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		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		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 Stand	ard?	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 interve	ntion	Acceptable
6. PHYSICAL PLANT Impervious surfaces		Acceptable
		Acceptable
		,
General cleanliness Rehavior studies: madilion of behavioral boxes/secondary enclosures, mathed and agents used for cleaning		N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning		
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning 7. SURGICAL PROCEDURES: General Considerations		A monorgan betw
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning 7 SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physical	ly or otherwise)	Acceptable Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning 7 SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physical according to the Guide	ly or otherwise)	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning 7. SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physical according to the Guide Interior surfaces smooth and impervious to moisture	ly or otherwise)	Acceptable Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning 7 SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physical according to the Guide	ly or otherwise)	Acceptable

Report Date: 08/19/2019

IACUC Inspections	Details	Report
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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	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	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 Inspectors noted that the disaster plan was outdated. As a satellite facility, a current version is required in case of an emergency. Please update the disaster plan with the most current information and ensure all laboratory personnel review it at least annually.	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 PID	Inspection Date:	09/25/2019
Inspection ID 12244	Inspectors	DCN-NCCU
Inspection Type Satellite		
Lab Coordinators	Inconstian Cammer	1te. 7
	Inspection Comme	stæ. 2
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Summary Conducted		Acceptable
NCCU inspector Dr. Derek Norford spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All a others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be while the DCM orientation must be renewed every 3 years.		Northerne
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tal ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	b in ACAP regularly to	
2. DOCUMENTATIONS and IACUC 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		Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?		Acceptable
Other The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, the IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/lacuc/	ey are posted to the main	N/A
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 p are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in		
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; Current copy of Needle Safety in Animal Studies posted		Acceptable
Proper carcass disposal/hazardous waste disposal (especially hazard contaminated)		Acceptable
Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)		Acceptable Acceptable
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?		Acceptable
Review of chemical hazard forms by laboratory personnel before initial use		Acceptable
Other		N/A
4 ANIMAL CARE		
Does the lab know how to report animal health issues to DCM?		Acceptable
If USDA regulated species, are there clinical records for individual animals?		N/A
Analgesia/anesthesia use as described in approved ACAP		Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method too	ols sharp/adequate	Acceptable
Means to track animal usage		Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)		Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)		N/A
Other		N/A
S AGENTS ADMINISTERED		Acceptable
AGENTS ADMINISTERED Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)		N/A
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St	andard?	
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention	andard?	Acceptable
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance		Acceptable N/A
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked		Acceptable N/A Acceptable
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked Other		Acceptable N/A
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked Other PHYSICAL PLANT- Lab Space		Acceptable N/A Acceptable N/A
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked Other		Acceptable N/A Acceptable N/A Acceptable
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked Other By PHYSICAL PLANT- Lab Space Impervious surfaces	l appropriately)	Acceptable N/A Acceptable N/A
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked Other PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	l appropriately)	Acceptable N/A Acceptable N/A Acceptable Acceptable
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked Other PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning DCM biological monitoring schedule? Other	l appropriately)	Acceptable N/A Acceptable N/A Acceptable Acceptable N/A
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked Other S PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning DCM biological monitoring schedule? Other	l appropriately)	Acceptable N/A Acceptable N/A Acceptable Acceptable N/A
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked Other PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning DCM biological monitoring schedule? Other	l appropriately) ; Are they on the	Acceptable N/A Acceptable N/A Acceptable Acceptable N/A N/A
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of St Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper Controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked Other PHYSICAL PLANT- Lab Space Impervious surfaces General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (phys	l appropriately) ; Are they on the	Acceptable N/A Acceptable N/A Acceptable Acceptable N/A N/A

Page 1 of 2

Report Date: 10/07/2019

Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	N/A
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	N/A
Closure method	N/A
Other	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 interruption to supply	Acceptable
Health/mortality records/reports to Vet Services (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/Acquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visibly posted	Acceptable
Other	N/A
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
Other	N/A

PI: Inspection Date: PI PID Inspectors	09/24/201
Inspection ID 12270	
Inspection Type Satellite Lab Coordinators	DCM vet EHS
Deficiency Count: 0 Inspection Comm	nents: 6
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with, the Laboratory Animal Coordinator (LAC), and a member of the lab, during the inspection. As a result of a misunderstanding, the inspection was conducted earlier than scheduled, and were very generous with their time in accommodating the inspectors. 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.	Acceptable
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. Red check marks indicate the person is due for recertification.	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all applicable protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal activity in these spaces.	
2. DOCUMENTATIONS and IACUC 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	Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?	Acceptable
Other	N/A
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; Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal/hazardous waste 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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?	N/A
Review of chemical hazard forms by laboratory personnel before initial use	N/A
Other WH 439 contained a large plastic pool which was used for conducting behavioral studies with frogs. Speakers were placed above the water level on plastic containers positioned in the pool. The placement of the speakers represented a possible electrical hazard. Please consult with EHS personnel to determine if the outlets are GFCI-protected as well as to determine the optimal set-up to ensure personnel and animal safety.	No Deficiency
4. ANIMAL CARE	
Does the lab know how to report animal health issues to DCM?	Acceptable
If USDA regulated species, are there clinical records for individual animals?	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools sharp/adequate	Acceptable
Means to track animal usage	Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)	N/A
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)	N/A
Other	N/A
5. AGENTS ADMINISTERED	
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) The LAC shared that the MS 222 being used by the lab was not pharmaceutical grade. The inspectors and DCM veterinarians explained that all products used within live animalis must be pharmaceutical or veterinary grade, unless otherwise approved onto a protocol. The lab has already purchased pharmaceutical grade MS 222, and until it arrives, should request pharmaceutical grade supplies from DCM veterinarians if needed.	No Deficiency
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention	Acceptable
Proper Controlled Substance Storage and Records; double lock, running balance	N/A
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriately)	Acceptable
Other	N/A
5. PHYSICAL PLANT- Lab Space	
Impervious surfaces	Acceptable
General cleanliness DCM veterinarians observed numerous cages with dead crickets on the top surface of the sand. It was recommended that dead crickets be removed from the cages in between cleanings.	No Deficiency
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on the DCM biological monitoring schedule?	Acceptable
Other Inspectors observed bags of sand on the floor of the stairwell next to room B49. Some of the bags were torn and/or leaked sand onto the floor. Bags should be stored off of the floor, such as on a pallet or rack, to minimize the possibility of contamination with bugs and/or mold. A pallet jack was recommended by the Environment Health and Safety (EHS) representative to quickly and effectively move the bags upon delivery and to store them off of the floor. Please follow up with Cathy Brennan of EHS to determine a satisfactory ergonomic solution to moving the sand bags.	No Deficiency

the Environment Health and Safety (EHS) representative to quickly and effectively move the bags upon de up with Cathy Brennan of EHS to determine a satisfactory ergonomic solution to moving the sand bags.

Obtained by Rise for Animals. Uploaded 07/05/2020

IACUC Inspections Details Report

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
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery, Preparation of sterile incision site and surrounding area	N/A
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	N/A
Closure method	N/A
Other	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)	N/A
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 interruption to supply	Acceptable
Health/mortality records/reports to Vet Services (i.e. multiple, removed from population)	Acceptable
HVAC adequate and non-recirculating (suggest monitoring annually)	Acceptable
Maintaining electronic census/Acquired new animals? Source? Permits on file?	Acceptable
Pest control (frequency, effectiveness)	Acceptable
Sanitation schedule (daily/weekly/monthly/annually) maintained	Acceptable
Veterinary contact info visibly posted	Acceptable
Other	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 Inspectors observed that husbandry logs included an ideal humidity range of 0-100%. As this range contained all possible values, it made it difficult to note a unusual values. Please consult with DCM veterinarians to determine an optimal humidity range for this species of toad and update the husbandry logs with the new range for humidity values.	No Deficiency ny
Equipment properly sanitized, separation based on health status	Acceptable
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?	Acceptable
Other	N/A

	ection Date: 04/15/2019 ectors
spection Type Informational b Coordinators	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to 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 regularl ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	y to
DOCUMENTATIONS and POSTINGS	A
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 t IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/lacuc/	Acceptable the main
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu//acuc/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, th are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the l	lab.
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer re- Inless USDA or DoD/VA	q'd Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research HEALTH AND SAFETY	Acceptable
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
Narning 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
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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriat	
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
Fribromoethanol (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 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. Ple 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	No Deficiency ase see
PHYSICAL PLANT	
mpervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
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 otherv according to the Guide	wise) N/A
nterior surfaces smooth and impervious to moisture	N/A
	N/A
⁻ ixed equipment is sanitizable	
Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia	

IACUC	Inspections	Details	Report
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Procedures for administering and monitoring analgesia (survival surgery)	
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
· ·	

1: Inspect	ion Date: 05/01/201
nspection ID 1323	UIS
ab Coordinators	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted 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.	Acceptable
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. Red 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 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	Acceptable
IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/lacuc/</u> 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
I. 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
Procedures for damp scavenging volatile anesthetics, check for Pair can weight 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
I. ANIMAL CARE Report spimel health issues to Division of Comparative Medicine	Accontable
Report animal health issues to Division of Comparative Medicine	Acceptable N/A
Clinical records for individual animals (covered species) Analgesia/anesthesia use as described in approved ACAP	
Euthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable Acceptable
	•
Means to track animal usage/Euthanasia log MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable N/A
	N/A
Toe Clip Discussion (max P10, 2 toes, approved in ACAP) AGENTS ADMINISTERED	IV/A
	Acaaniahia
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 N/A
Proper Controlled Substance Storage and Records; double lock Proper Loss maintained for agents used to administer anesthesia, analogoia and for authonasia and agute intervention	N/A N/A
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	N/A
i PHYSICAL PLANT	Anappinhia
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Debautor studies, candition of behavioral beyon/recorder, and super mathed and another used for stration	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	
SURGICAL PROCEDURES: General Considerations	NI/A
SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise)	N/A N/A
SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide	
 SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide Interior surfaces smooth and impervious to moisture 	N/A
SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable	N/A N/A
SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia	N/A N/A N/A
SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care	N/A N/A N/A
SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise) according to the Guide Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia	N/A N/A N/A

Page 1 of 2

Report Date: 05/01/2019 3 2 3

0. OUDC/CALIDDCCEDUDEC, Acardia Taskaraya faz Custual Dasasduras	
 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

I PID Inspe	ction Date:04/22/201 ctors
nspection ID 1324 Inspection Type Informational	
ab Coordinators	
. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with, the Laboratory Animal Coordinator (LAC) for (as all animal use spaces are shared), during the inspection. 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.	Acceptable All
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. Red check marks indicate the person is due for recertification.	
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 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 mi IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	Acceptable
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/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 the 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.	ey
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
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
ANIMAL CARE	A
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
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
PHYSICAL PLANT	Anna-t-t-t-
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
SURGICAL PROCEDURES: General Considerations	\$1/0
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or otherwise)	
*	N/A
Interior surfaces smooth and impervious to moisture	N1/A
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable	N/A
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia	
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care	N/A



9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	N/A
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	
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: Inspec PI PID Inspec	tion Date: 04/22/2019 tors
nspection ID 1326	ews 49
ab Coordinators.	
I. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
Inspectors spoke with	4
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. Red 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 reg'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 ma IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/lacuc/	,
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu//acuc/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 the 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.	ł
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
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
I 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
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
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
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
I. 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)	Uploaded 07/05/2



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: Inspect PI PID Inspect Inspection ID 1327 Inspection Type Informational Lab Coordinators	tion Date: 04/22/2019 tors
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with	Acceptable II
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. Red check marks indicate the person is due for recertification.	
2. DOCUMENTATIONS and POSTINGS	A a a such a la la
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted 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/lacuc/	Acceptable
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 3. HEALTH AND SAFETY	Acceptable
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) 5. AGENTS ADMINISTERED	N/A
D. AGENTS ADMINISTERED Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	Acamiania
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable 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
Obtained by Rise for Animals.	opioaded 07/05/20
iversity of North Carolina - Chapel Hill	Page 1

IACUC In	spections	Details	Report
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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: Inspect	ion Date: 04/22/201 ors
nspection ID 1328	
nspection Type Informational .ab Coordinators I	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
Inspectors spoke with , the Laboratory Animal Coordinator (LAC) for (as all animal use spaces are shared), 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.	1
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. Red check marks indicate the person is due for recertification.	
2 DOCUMENTATIONS and POSTINGS	A
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 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/lacuc/	Acceptable
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
9. 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
I 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
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
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
/ 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
3 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
r receative for administrating and monitoring analyceat (our man ourgery)	



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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격: 의 PID	Inspection Date: 04/29/201 Inspectors
nspection ID 1331 nspection Type Informational .ab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with the Pl and the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exp animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the Di 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 reguestions are all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	ilarly to
2. DOCUMENTATIONS and POSTINGS Emergency, weekend, and holiday contact information visibly posted in animal housing area 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 p should DCM or IACUC personnel need to contact the laboratory on weekends, holidays, and after hours.	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 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 IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	req'd Acceptable
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/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 lat are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the Approved applications and amondments available to and reviewed by laboratory personnel conducting animal research	he lab.
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
. 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
I ANIMAL CARE	Acceptance
Report animal health issues to Division of Comparative Medicine Please note: A green Health Check card may be placed on any found sick or injured animal cage. These cards are located in the black box containing colored cards within the animal room. A DCM representative (i.e. veterinary technician, husbandry technician, and supervisor) should be notified an placement of this card so that these animals can be examined by Vet Services in a timely manner.	
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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriated approprinted appropria	riately) 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? • During our most recent AAALAC site visit, site visitors recommended the institution provide additional guidance concerning the use of tribromoe TBE or Avertin). These guidelines ensure the proper and consistent preparation, storage, and time to expiration of TBE for safe usage and will be n IACUC inspections. The new standard issued by the IACUC can be reviewed here: University Standard for Preparation Storage and Use of Tribromoethanol: <u>https://research.unc.edu/files/2018/05/University-Standard-for-Tribromoe</u>	noted during
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
PHYSICAL PLANT	,
Impervious surfaces	Acceptable
General cleanliness	Acceptable
	N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations	

Page 1 of 2

Functional components (animal prep according to the Guide	paration, operating room, post-op recovery designed and separated (physically or otherwise)	N/A
Interior surfaces smooth and imperv	rious to moisture	N/A
Fixed equipment is sanitizable		N/A
8 SURGICAL PROCEDURES Anest	thesia	
Adequate records of anesthesia and	1 preoperative care	N/A
Proper monitoring for depth of surgion	cal anesthesia (toe pinch documented?)	N/A
Procedures for administering and me	onitoring analgesia (survival surgery)	N/A
Proper anesthetics, doses, routes of	f anesthesia (records maintained)	N/A
9 SURGICAL PROCEDURES: Asept	tic Technique for Survival Procedures	
Rodent survival surgery clean and u	incluttered; not used for anything else during the surgical procedure	N/A
Autoclave Sterilization procedures a	re 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 ap	propriate (eg: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes		N/A
Preparation of sterile incision site an	nd surrounding area	N/A
Sterile Sutures; Wound Clips, Staple	es and/or Skin Glue	N/A
Proper recovery monitoring		N/A
Records of postoperative care includ	ding analgesia agents (all species)	N/A
10. SATELLITE FACILITIES		
Daily feed/water/observation-records	s maintained	N/A
Animal identification posted (PI, ACA	AP ID #, species, source)	N/A
Changes in environment since last in	nspection (noise, illumination, vibration, etc)	N/A
Disaster plan in place, annual reviev	w, updates since last provided to OACU	N/A
Food stored in sealed container with	n date of expiration/milling/plan for interuption to supply	N/A
Health/mortality records/reports to V	/et Svcs (i.e. multiple, removed from population)	N/A
HVAC adequate and non-recirculatir	ng (suggest monitoring annually)	N/A
Maintaining electronic census/ Aquir	red new animals? Source? Permits on file?	N/A
Pest control (frequency, effectivenes	SS)	N/A
Sanitation schedule (daily/weekly/me	onthly/annually) maintained	N/A
Veterinary contact info visably poste	ed	N/A
11. AQUATIC FACILITIES		
Chlorine/chloramine/chemicals remo	oved or neutralized, water quality testing	N/A
Nitrate/nitrite/ammonia levels measu	ured to confirm proper biofiltering	N/A
Temperature/humidity values record	led	N/A
Equipment properly sanitized, separ	ration based on health status	N/A
Tank allows for undisturbed observa	ation, enrichment present	N/A
Personnel trained in H2O quality, an	nimal health monitoring	N/A
How is MS222 prepared for use?		N/A

יו איז	Inspection Date: 05/15/2019 Inspectors
nspection ID 1335 nspection Type Informational .ab Coordinators I	
I. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with the PI during the inspection. All animal handlers and others exposed to animals in the lab should update the Animal Han annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be renewed every 3 years.	Acceptable adler form
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 in ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	regularly to
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 long unless USDA or DoD/VA This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annuall surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, p hesitate to contact us or check our website for information (https://research.unc.edu/lacuo/). If the lab begins performing surgeries or other mo procedures within the lab space, we must be contacted so that we can visit the space semiannually.	ly if survival please don't
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal researc The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are pos 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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy	
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
LANIMAL 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
). AGENTS ADMINISTERED Dread use suit for anominal drugs and historical are within surjection data (surject drugs constraints) are marked and	ransiatah) taanat-51-
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked approximation are dependent or marked approximation are dependent or and approximately are dependent or an approximately are dependent or an approximately are dependent or an approximately approximately are dependent or an approximately a	
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?	
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 Acceptable
. PHYSICAL PLANT	×
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
SURGICAL PROCEDURES General Considerations	2116
Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or	N/A otherwise) N/A
according to the Guide	X 1/A
lateriar aurfaces empath and impanyious to maintum	N/A
Interior surfaces smooth and impervious to moisture	
Fixed equipment is sanitizable	N/A
	N/A 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

	Inspection Date: 06/21/2019
	Inspectors
nspection ID 2397 nspection Type Informational	
ab Coordinators	
Deficiency Count: 0	Inspection Comments: 2
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or any surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspectio hesitate to contact us or check our website for information (https://research unc.edu/iacuc/). If the lab begins performing surgeries or othe procedures within the lab space, we must be contacted so that we can visit the space semiannually.	ons, please don't
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 poster The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, they are IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	
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 i are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard or	opy by the lab.
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no unless USDA or DoD/VA	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal rese HEALTH AND SAFETY	earch Acceptable
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)	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
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
AGENTS ADMINISTERED	005
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked a	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 Standar	
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 interven	
Proper logs maintained for agents used to administer anestnesia, analyesia and for edmanasia and acute interven	
Impervious surfaces	Acceptable
General cleanliness Rehavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations	in/A
	N/A
Location minimizes traffic/contamination (survival surgery)	
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically according to the Guide	r or otherwise) N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
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
SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	or Animals. Uploaded 07/05/2



Report Date: 06/21/2019

IACUC Inspections Details Repo	317
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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



Page 1 of 2

Report Date: 04/25/20

IACUC II	nspections	Details	Report
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 Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery) Proper anesthetics, doses, routes of anesthesia (records maintained) SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time) Use of sterile gloves and drapes 	N/A N/A N/A N/A N/A N/A N/A N/A
Proper anesthetics, doses, routes of anesthesia (records maintained) 9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A N/A N/A N/A N/A 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 Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time) 	N/A N/A N/A N/A N/A
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A N/A N/A N/A
Autoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible) Use of effective aseptic procedures for survival surgery Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A N/A N/A N/A
Use of effective aseptic procedures for survival surgery Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A N/A N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)	N/A N/A
	N/A
Use of sterile gloves and drapes	
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

	ection Date: 04/22/2019
spection ID 9756	ectors
spection Type Informational ab Coordinators	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted inspectors spoke with . , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation mu- 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. Red check marks indicate the person is due for recertification.	
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 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 n	Acceptable
IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	
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 it 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
HEALTH AND SAFETY	Accontabla
Gas cylinders immobilized; Eyewash check documented/dust caps in place Precedures for using/sequencing valatile aporthetics; check for Eak cap visibit	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
Narning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	Acceptable
Cage side chemical hazard identification training Review of chemical hazard forms by laboratory personnel before initial use	Acceptable Acceptable
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
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
PHYSICAL PLANT	,
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
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	
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	Acceptable
	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	
Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery)	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

	ection Date: 04/25/2019 ectors
spection ID 9757	
spection Type Informational ab Coordinators	
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with , the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in th 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. Red check marks indicate the person is due for recertification. 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 m IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/lacuc/</u>	Acceptable
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 th 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.	iey
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
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
roper carcass disposal (especially hazard contaminated)	Acceptable
nimal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
Varning 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
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
uthanasia performed as described in approved ACAP; tools sharp/adequate	Acceptable
Aeans 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
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
Fibromoethanol (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
PHYSICAL PLANT mpervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
SURGICAL PROCEDURES: General Considerations	
.ocation 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	
nterior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
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



9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	A11.A
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: 05/21/2019 PI PID Inspectors 10798 Inspection ID Inspection Type Informational Lab Coordinators 1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY Acceptable Summary Conducted the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in Inspectors spoke with 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. Red 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 reg'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/jacuc/ 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 Acceptable Procedures for using/scavenging volatile anesthetics; check for Fair can weight 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 Acceptable Means to track animal usage/Euthanasia log 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 Acceptable Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention 6. PHYSICAL PLANT Impervious surfaces Acceptable Acceptable General cleanliness 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) Acceptable according to the Guide 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?) Obtained by Rise for Animals. Upfoaded 07/05/2020

Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Proper anesthetics, doses, routes of anesthesia (records maintained)	Acceptable
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
0. 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
1. 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



	ection Date: 06/12/2 ectors
nspection Type Informational	
ab Coordinators	
. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if surviva 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.	t
: 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 m IACUC webpage under 'important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable nain
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/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 the 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	,
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
I. 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
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)	Acceptable
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately)	
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 PHYSICAL PLANT	N/A
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations	Acceptable
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	e) N/A
	N/A
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	
Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia	N/A
Fixed equipment is sanitizable SURGICAL PROCEDURES: Anesthesia	N/A N/A
Fixed equipment is sanitizable I. SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care	

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 guality, animal health monitoring	N/A
How is MS222 prepared for use?	N/A
	1 87 7 3

PI:	Inspection Date:	07/09/2019
PI PID Inspection ID 11867	Inspectors	
Inspection Type Informational Lab Coordinators		
Deficiency Count: 0	Inspection Comme	nts: 8
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal har animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed or orientation must be renewed every 3 years.		Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Person ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertificat		
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to <u>lacuc@med.un</u> protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior these spaces.		
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 Numb		Acceptable
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Sec unless USDA or DoD/VA	arches no longer req'd	Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting a This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use betwee hesitate to contact us or check our website for information (<u>https://research.unc.edu/lacuc/</u>). If the lab begins performing surger procedures within the lab space, we must be contacted so that we can visit the space semiannually.	years, or annually if survival en inspections, please don't	Acceptable
3. HEALTH AND SAFETY		
Gas cylinders immobilized; Eyewash check documented/dust caps in place Procedures for using/scavenging volatile anesthetics; check for Fair can weight isoflurane is used in the DCM procedure space with DCM vaporizer. Isoflurane is used for the retro-orbital bleeding, not for the	o surgical aposodure	N/A N/A
Proper sharps disposal, hazardous waste disposal	a sergheen procedure.	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 # 966-9	119	Acceptable
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)		N/A
Cage side chemical hazard identification training		N/A
Biological agents (BSL2) are used at this time with proper cage side identification.		
Review of chemical hazard forms by laboratory personnel before initial use		N/A
4. ANIMAL CARE		6
Report animal health issues to Division of Comparative Medicine		Acceptable
Clinical records for individual animals (covered species)		N/A Acceptable
Analgesia/anesthesia use as described in approved ACAP Euthanasia performed as described in approved ACAP; tools sharp/adequate		Acceptable Acceptable
Means to track animal usage/Euthanasia log		Acceptable
A spreadsheet for breeding numbers and the number of weaned mice and euthanized animals is maintained.		, a warne na gar kini sari sar
MONITORING DOCUMENTATION (weight, drugs, post op care, etc)		Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP) Earnotch and ear punch are used for identification. No genotyping is done.		N/A
5. AGENTS ADMINISTERED	marked annuari-t-t-	Anaptichia
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade)	markeu appropriately)	Acceptable 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 acut	e intervention	Acceptable
6 PHYSICAL PLANT Impervious surfaces All procedures are performed in the DCM facilities.		N/A
General cleanliness		N/A
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for clea	ning	N/A
7. SURGICAL PROCEDURES: General Considerations	~	
Location minimizes traffic/contamination (survival surgery) All surgical procedures (non-survival) are performed in the DCM Genetics Medicine procedural space.		N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated i according to the Guide	(physically or otherwise)	N/A
Interior surfaces smooth and impervious to moisture		N/A
Fixed equipment is sanitizable Obtained by	Rise for Animals.	uproaded 07/05/2



Adequate records of anesthesia and properative care Acceptable Proper monitoring for depth of surgical anesthesia (ice princh documented?) Acceptable Proper monitoring for depth of surgical anesthesia (ice princh documented?) N/A Proper anesthetica, dose, noutes of aneathesia (records maintained) Acceptable SURGICAL PROCEDURES? Assertic Technique for Survival Procedures N/A Autociave Sterilization procedures are appropriate (eg. storage, use of autociave tape, expiration date visible) N/A Use of effective aseptic procedures for survival surgery N/A Cold Sterilization procedures are appropriate (eg. storage, use of autociave tape, expiration date visible) N/A Use of sterili gloves and drapes N/A Proparation of sterile incision site and surrounding area N/A Sterile Sutures; Wound Clips, Steriges and/or Skin Glue N/A Propartic procedures are including analgesia agents (all species) N/A Or SATELLITE FACILITES N/A Changes in environment since last inspecton (noise, illumination, vibration, etc) N/A Changes in environment since last inspecton (noise, illumination, vibration, etc) N/A Changes in environment since last inspecton (noise, illumination, vibration, etc) N/A	8. SURGICAL PROCEDURES: Anesthesia	
Proper monitoring for depth of surgical anesthesia (ice pinch documented?)AcceptableProper anesthetics, does routes of anesthesia (records maintained)AcceptableSURGICAL PROCEDURES: Aseptic Technique for Survival ProceduresNAAutocives Stellization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)NAAutocives Stellization procedures are appropriate (eg: manufacturer recommended exposure time)NAUse of effective aseptic procedures for survival surgeryNAGold Stellization procedures are appropriate (eg: manufacturer recommended exposure time)NAUse of stellie incision sile and surrounding areaNAProper necovery monitoringNARecords of postoperative care including analgesia agents (all species)NAOtally feedwater/observation-records maintainedNAAnimal identification posted (PI, ACAP ID #, species, source)NADaily feedwater/observation-records maintainedNAAnimal identification posted (PI, ACAP ID #, species, source)NAFood stored in seelad container with date of expiration/milling/plan for interuption to supplyNAHath/mortality records/reports to vet Svos (i.e. multiple, removed for population)NAHVAC adequate and hom-recirculating (suggest monitoring annuality)NAMaintaining electronic cansiz/ Aquird ne wainmisti? Source? Permits on file?NAHAth/mortality records/reports to vet Svos (i.e. multiple, removed form population)NAHVAC adequate and hom-recirculating (suggest monitoring annuality)NAMaintaining electronic cansiz/ Aquird ne wainmist? Sour		Acceptable
Procedures for administering and monitoring analgesia (survival surgery)N/AProper anesthetics, doses, routes of anesthesia (records maintained)AcceptableSURCICAL PROCEDURES: Assptic Technique for Survival ProceduresN/ARodent survival surgery clean and uncluttered, not used for anything else during the surgical procedureN/AAutoclave Sterilization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible)N/AUse of effective asseptic procedures for survival surgeryN/ACold Sterilization procedures are appropriate (eg: manufacturer recommended exposure time)N/AUse of sterile gloves and drapesN/ASterile Sturiues; Wound Clings, Staples and/or Skin GlueN/AProper recovery monitoringN/ARecords of postoperative care including analgesia agents (all species)N/AO SATELLTE FACILITIESN/ADaily feed/water/observation-records maintainedN/AAnimal identification posted (PL ACAP ID #, species, source)N/AChanges in environment since last inspection (noise, illumination, vibration, etc)N/AProod stored in sealed container with date of expiration/milling/plan for interuption to supplyN/AHVAC adequate and non-records maintainedN/AHVAC adequate and non-records maintainedN/AFood stored in sealed container with date of expiration/milling/plan for interuption to supplyN/AHubmotality records/reports to Vet Svcs (i.e. multiple, removed from population)N/AHubmotality records/reports to Vet Svcs (i.e. multiple, removed from population)N/ANirate		
Proper anesthetics, doses, routes of anesthesia (records maintained) Acceptable 9. SURCICAL PROCEDURES: Aseptic Technique for Survival Procedures N/A Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure N/A Autoclave Stellization procedures are appropriate (eg: storage, use of autoclave tape, expiration date visible) N/A Use of effective aseptic procedures are appropriate (eg: manufacturer recommended exposure time) N/A Use of sterile gloves and rapes 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 N/A Daily feed/water/observation-records maintained N/A Animal identification posted (PI, ACAP ID #, species, source) N/A Changes in environment isone last inspection (noise, illumination, vibration, etc) N/A Disaster plan in place, annual review, updates since last provided to OACU N/A Hoad calquate and non-recirculating (suggest monitoring annually) N/A HVAC adequate and non-recirculating (suggest monitoring annually) N/A		
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Personnel trained in H2O quality, animal health monitoring N/A	Equipment properly sanitized, separation based on health status	N/A
•	Tank allows for undisturbed observation, enrichment present	N/A
How is MS222 prepared for use? N/A	Personnel trained in H2O quality, animal health monitoring	N/A
	How is MS222 prepared for use?	N/A

Pi:	Inspection Date:	09/05/2019
PI PID Inspection ID 11913	Inspectors	
ab Coordinators		
Deficiency Count: 0	Inspection Commen	ts: 2
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with , the Principal Investigator (PI), during the inspection. All animal handlers and others exposed t should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM or renewed every 3 years.	o animals in the lab	Acceptable
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification. 2. DOCUMENTATIONS and IACUC POSTINGS	o in ACAP regularly to	
Emergency, weekend, and holiday contact information visibly posted in animal housing area		Accontable
	nonto d	Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers p	ousied	Acceptable
All personnel handling animals in the lab trained/certified and on application		Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?		Acceptable
Other The IACUC creates, reviews and/or revises current Standards and Policies on a monthly basis. As these documents are approved, th IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	ey are posted to the main	N/A
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 pr are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in l		
3. HEALTH AND SAFETY		A a a a m h a la la
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; Current copy of Needle Safety in Animal Studies posted		Acceptable
Proper carcass disposal/hazardous waste 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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?		Acceptable
Review of chemical hazard forms by laboratory personnel before initial use		Acceptable
Other		N/A
1. ANIMAL CARE		
Does the lab know how to report animal health issues to DCM?		Acceptable
If USDA regulated species, are there clinical records for individual animals?		N/A
Analgesia/anesthesia use as described in approved ACAP		Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method too	ils sharp/adequate	Acceptable
Means to track animal usage		Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)		N/A
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)		Acceptable
Other		N/A
I. AGENTS ADMINISTERED		
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)		Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Sta	andard?	N/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention		N/A
Proper Controlled Substance Storage and Records; double lock, running balance		N/A
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked	appropriately)	Acceptable
Other		N/A
. PHYSICAL PLANT- Lab Space Impervious surfaces		Acceptable
General cleanliness		Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; DCM biological monitoring schedule?		N/A
Other		N/A
SURGICAL PROCEDURES: General Considerations		
Location minimizes traffic/contamination (survival surgery)		N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (phys	ically or otherwise)	N/A
according to the Guide		
according to the Guide Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure		N/A

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Report Date: 09/05/2019

Fixed equipment is sanitizable	N/A
Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	N/A
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	N/A
Closure method	N/A
Other	N/A

Report Date: 09/05/2019

2): Ins		
	-	09/26/2019
PI PID Ins nspection ID 11926	pectors	
nspection Type Informational		
ab Coordinators		
Deficiency Count: 0 Ins	pection Comments: 7	7
. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY		
Summary Conducted Inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others animals in the lab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while orientation must be renewed every 3 years.		table
This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annu surgeries are conducted by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspection hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other is procedures within the lab space, we must be contacted so that we can visit the space semiannually.	s, please don't	
Email reminders are now only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACA ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	P regularly to	
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to lacuc@med.unc.edu with all protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further ani these spaces.		
2. DOCUMENTATIONS and IACUC POSTINGS		
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Accept	table
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted	,	
All personnel handling animals in the lab trained/certified and on application	Accept	
How are approved applications and amendments available to and reviewed by laboratory personnel?	Accept	table
Other	N/A	
3. HEALTH AND SAFETY		
Gas cylinders immobilized; Eyewash check documented/dust caps in place Eye wash stations were tested monthly and documented by lab personnel. Inspectors observed that the dust cap was deteriorated. This may insufficient prevention of dust accumulation on the eye wash. Please consult with Cathy Brennan at EHS to determine if a replacement cap i	Accept result in s recommended.	table
Procedures for using/scavenging volatile anesthetics; check for Fair can weight	Accept	table
Proper sharps disposal; Current copy of Needle Safety in Animal Studies posted inspectors did not observe a Needle Safety in Animal Studies posting in TB 3017, which contained a sharps container. A copy of the posting LAC. 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/		ficiency
For the most recently approved/updated policies/standards please refer to the IACUC homepage:		
https://research.unc.edu//acuc/ under important Notices. Items are posted here as they are revised or approved each month.		
All other guidance documents may be found here: https://research.unc.edu/iacuc/policies-procedures/		
All other guidance documents may be found here: https://research.unc.edu/iacuc/policies-procedures/ Proper carcass disposal/hazardous waste disposal (especially hazard contaminated)	Accept	
All other guidance documents may be found here: https://research.unc.edu/iacuc/policies-procedures/ Proper carcass disposal/hazardous waste disposal (especially hazard contaminated) Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Accept	table
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All other guidance documents may be found here: https://research.unc.edu/lacuc/policies-procedures/ Proper carcass disposal/hazardous waste disposal (especially hazard contaminated) Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards? Review of chemical hazard forms by laboratory personnel before initial use Other 1 ANIMAL CARE Does the lab know how to report animal health issues to DCM? If USDA regulated species, are there clinical records for individual animals? Analgesia/anesthesia use as described in approved ACAP If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools sha Means to track animal usage Experimental Monitoring Documentation (weight loss, tumor size, etc.) Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP) Other 3 AGENTS ADMINISTERED Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Inspectors ware informed that nonpharmaceutical grade Pentobarbital was prepared as an anesthetic for nonsurvival surgeries without usin inspectors emailed the LAC a copy of the University Standard for Preparation Storage and Use of Tribromoethanol as a guide to using sterilit techniques when preparing nonpharmaceutical grade Pentobarbital was prepared as an anesthetic for nonsurvial surgeries without usin inspectors emailed the LAC a copy of the University Standard for Preparation Storage, and proper maintenance- aware of Standard at https://research.unc.edu/files/2018/06/University-Standard-for-Tribromoethanol.pdf.	Accept Accept N/A N/A N/A Accept N/A Accept Accept Accept Accept Accept Accept Accept Accept Accept Accept Accept Accept Accept N/A N/A N/A N/A	table table table table table table
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All other guidance documents may be found here: https://research.unc.edu/liacu/policies-procedures/ Proper carcass disposal/hazardous waste disposal (especially hazard contaminated) Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119 Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL) If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards? Review of chemical hazard forms by laboratory personnel before initial use Other 4 ANIMAL CARE Does the lab know how to report animal health issues to DCM? If USDA regulated species, are there clinical records for individual animals? Analgesia/anesthesia use as described in approved ACAP If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools sha Means to track animal usage Experimental Monitoring Documentation (weight loss, tumor size, etc.) Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP) Other 5 AGENTS ADMINISTERED Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade) Inspectors were informated that onspharmaceutical grade Pentobarbital, The standard can also be found at: https://research.unc.eduilies/2016/05/University.Standard for Preparation Storage, and proper maintenance- aware of Standard Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention Proper controlled Substance Storage and Records; double lock, running balance Is the lab ensuring drugs and biological agents were were informed have used for anesthesia, analgesia, euthanasia, and	Accept Accept N/A N/A N/A Accept N/A Accept Accept Accept Accept Accept Accept N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	table table table table table table table

General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they on the DCM biological monitoring schedule?	Acceptable
Other	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
Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
Other	N/A
8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	Acceptable
Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Inspectors observed that the surgical records indicated that a "tail pinch" was used to check for depth of surgical anesthesia. There were also several entries in which the box for "tail pinch" was not checked. The LAC explained that reference to "tail pinch" was a typographical error and the sheet should have indicated "toe pinch" as that was the method they used. Inspectors asked for future surgical logs to include this correction.	Acceptable
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	Acceptable
Procedures for administering and monitoring analgesia (survival surgery)	Acceptable
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	Acceptable
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	Acceptable
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs) Inspectors reminded the LAC that a hair bonnet, mask, sterile gloves, and lab coat are required for all survival surgeries.	Acceptable
Closure method	Acceptable
Other	N/A

PI:

1 PID	Inspectors
nspection ID 11946	
nspection Type Informational	
ab Coordinators.	
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 animal bab should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation	
iso strong update the Antihan Pantiles form annually. The MCCC onentation is now required to be completed only once, while the boll orientation renewed every 3 years.	n mast be
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 reg	jularly to
ensure all animal handlers are up to date on all three certifications. Red 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 longe	er reg'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 poster IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	d to the main
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 la are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by	ab, that they the lab
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	
	Ассергаріе
I 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
	N/A
Warning signs visible upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
I. 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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked approp	priately) 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
, w	
Proper logs maintained for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
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 ot	
according to the Guide	
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
I SURGICAL PROCEDURES: Anesthesia	
Adequate records of anesthesia and preoperative care	N/A
· · · · · · · · · · · · · · · · · · ·	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	19/25
Proper monitoring for depth of surgical anesthesia (toe pinch documented?) Procedures for administering and monitoring analgesia (survival surgery)	N/A nimals. Uploaded 07/05/2



Report Date: 04/29/2019

Inspection Date: 04/29/2019

IACUC Inspections	Details	Report



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

	Inspection Date: 04/18/2019
	Inspectors
nspection ID 11952 nspection Type Informational	
.ab Coordinators (
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
Based on conversation with	ce) are Ig you over mal work itate to
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 t IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/lacuc/</u>	Acceptable • the main
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by th	
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer unless USDA or DoD/VA	
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
I. 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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropri	ately) 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
PHYSICAL PLANT	IVA
	Anantahia
Impervious surfaces General cleanliness	Acceptable
	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
SURGICAL PROCEDURES: General Considerations	<u>Ν/Λ</u>
Location minimizes traffic/contamination (survival surgery)	N/A
Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or othe according to the Guide	
Interior surfaces smooth and impervious to moisture	N/A
Fixed equipment is sanitizable	N/A
3. SURGICAL PROCEDURES: Anesthesia	417.5
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)	mals. Uploaded 07/05/20



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 (eq: 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

I PID Inspecto Ispection ID 11985 Ispection Type Informational	on Date: 05/09/2015 rs
ab Coordinators BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with: , the surgeon, 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.	Acceptable
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. Red check marks indicate the person is due for recertification.	
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/lacuc/	
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
. 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 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. Please contact the Facility Manager where your animals are housed and dosed so they can train your lab in the use of this card system, as practices may have changed.	No Deficiency
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
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
AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) Inspectors reminded the surgeon that expired pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention.	No Deficiency
Additionally, medical materials (e.g., suture, saline, betadine) 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.	
Please label secondary containers for betadine/povidine.	
Pharmaceutical or veterinary grade agents used (exception required for Non-pharmaceutical grade) The inspector explained that all products used within live animals must be pharmaceutical or veterinary grade, unless otherwise approved onto a protocol. This includes the tetracaine/proparacaine and erythromycin ointment. Please ensure these products are in place prior to the next surgery.	No Deficiency
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
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning SURGICAL PROCEDURES: General Considerations	N/A
Location minimizes traffic/contamination (survival surgery) You must add NRB 4135 to the protocol via amendment prior to conducting any surgery in the space. Currently you are only approved for this procedure in	No Deficiency

Obtained by Rise for Animals. Uploaded 07/05/2020



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) Please ensure that each of the following are reviewed by the surgeon:	No Deficiency
University Standard for Rodent Survival Surgery: https://research.unc.edu/files/2012/11/Guidelines-for-Aseptic-Technique-for-Rodent-Survival-Surgeries.pc	lf
* All instruments must be sterilized according to this document, or an amendment must be submitted to indicate current practice/preference.	
IACUC Anesthetized Procedure SOP for Rats and Mice – For all researchers performing survival and non-survival procedures: https://research.unc.edu/files/2017/02/IACUC-Anesthetized-Procedure-SOP-for-Rats-and-Mice.pdf	
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
	Acceptable
Records of postoperative care including analgesia agents (all species) The IACUC has instituted new guidelines in for post-operative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analge 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.	
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The IACUC has instituted new guidelines in for post-operative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analgi 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. <u>https://research.unc.edu/files/2017/02/Informational-Memo-March-2017.pdf</u> <u>https://research.unc.edu/files/2017/02/Post-Procedure-Monitoring-card-FINAL-2017.pdf</u> <u>https://research.unc.edu/files/2017/02/Post-Procedure-Monitoring-card-FINAL-2017.pdf</u> This replaces the purple card being used by the surgeon now. 10 SATELLITE FACILITIES Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file?	N/A N/A N/A N/A N/A N/A N/A N/A
The IACUC has instituted new guidelines in för post-öperative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analge 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/Post-Procedure-Monitoring-card-FINAL-2017.pdf This replaces the purple card being used by the surgeon now. 10 SATELLITE FACILITIES Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness)	N/A N/A N/A N/A N/A N/A N/A N/A N/A
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The IACUC has instituted new guidelines in för post-öperative monitoring at the cade side level. Use of the new pink Post-Procedure Monitoring and Analge 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. <u>https://research.unc.edu/files/2017/02/Post-Procedure-Monitoring-card-FINAL-2017.pdf</u> <u>https://research.unc.edu/files/2017/02/Post-Procedure-Monitoring-card-FINAL-2017.pdf</u> This replaces the purple card being used by the surgeon now. 10. SATELLITE FACILITIES Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted	N/A N/A N/A N/A N/A N/A N/A N/A N/A
The IACUC has instituted new guidelines in för post-öperative monitoring at the cade side level. Use of the new pink Post-Procedure Monitoring and Analge Card has been implemented and is required for all cages receiving analges and/or post-operative monitoring. The CoCM 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 https://research.unc.edu/files/2017/02/Post-Procedure-Monitoring-card-FINAL-2017.pdf This replaces the purple card being used by the surgeon now. 10. SATELLITE FACILITIES Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svos (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11. AQUATIC FACILITIES	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
The IACUC has instituted new guidelines in for post-operative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analge Card has been implemented and is required for all cages receiving analgesis 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/Post-Procedure-Monitoring-card-FINAL-2017.pdf https://research.unc.edu/files/2017/02/Post-Procedure-Monitoring-card-FINAL-2017.pdf This replaces the purple card being used by the surgeon now. 10. SATELLITE FACILITIES Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
The IACUC has instituted new guidelines in for post-operative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analys Card has been implemented and is required for all cages receiving analgesis 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 This replaces the purple card being used by the surgeon now. 10. SATELLITE FACILITIES Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svos (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
The IACUC has instituted new guidelines in 6 ⁻ post-operative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analge Card has been implemented and is 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 This replaces the purple card being used by the surgeon now. 10. SATELLITE FACILITIES Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
The IACUC has instituted new guidelines in för post-öperative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analge Card has been implemented and is required for all cages receiving analgesia andider post-operative monitoring. The cards are available in the DCU 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/Post-Procedure-Monitoring-card-FINAL-2017.pdf https://research.unc.edu/files/2017/02/Post-Procedure-Monitoring-card-FINAL-2017.pdf This replaces the purple card being used by the surgeon now. 10. SATELLITE FACILITIES Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11. AQUATIC FACILITIES Chlorine/chloramine/chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded Equipment properly sanitized, separation based on health status	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
The IACUC has instituted new guidelines in för post-öperative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analge analgesia andiafor post-operative monitoring. The cards are available in the DCM facilities This does not take the place of post-operative monitoring. The cards are available in the DCM facilities This does not take the place of post-operative monitoring. The cards are available in the DCM facilities This does not take the place of post-operative monitoring -card-FINAL-2017.pdf https://research.unc.edu/files/2017/02/Post-Procedure-Monitoring-card-FINAL-2017.pdf Intus: Integration of the place of post-operative monitoring -card-FINAL-2017.pdf This replaces the purple card being used by the surgeon now. 10. SATELLITE FACILITIES Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svos (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11. AQUATIC FACLITIES Chiorine-chioramine-chemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded Equipment properly sanitized, separation	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
The IACUC has instituted new guidelines in 6° post-öperative monitoring at the cage side level. Use of the new pink Post-Procedure Monitoring and Analge analgesia and/or post-operative monitoring. The cards are available in the DCM facilities This does not take the place of post-operative monitoring. The cards are available in the DCM facilities This does not take the place of post-operative monitoring. The cards are available in the DCM facilities This does not take the place of 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/Post-Procedure-Monitoring-card-FINAL-2017.pdf This replaces the purple card being used by the surgeon now. 10. SATELLITE FACILITIES Daily feed/water/observation-records maintained Animal identification posted (PI, ACAP ID #, species, source) Changes in environment since last inspection (noise, illumination, vibration, etc) Disaster plan in place, annual review, updates since last provided to OACU Food stored in sealed container with date of expiration/milling/plan for interuption to supply Health/mortality records/reports to Vet Svcs (i.e. multiple, removed from population) HVAC adequate and non-recirculating (suggest monitoring annually) Maintaining electronic census/ Aquired new animals? Source? Permits on file? Pest control (frequency, effectiveness) Sanitation schedule (daily/weekly/monthly/annually) maintained Veterinary contact info visably posted 11. AQUATIC FACILITIES Chlorine/chloramine/shemicals removed or neutralized, water quality testing Nitrate/nitrite/ammonia levels measured to confirm proper biofiltering Temperature/humidity values recorded Equipment properly sanitized, separation based on health status	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A

Report Date: 0.5/13/2019

PI: Inspection	Date: 07/12/2019
PI PID Inspectors	
Inspection ID 12042 Inspection Type Informational	
Lab Coordinators	
Deficiency Count: 0 Inspection	Comments: 2
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted Inspectors spoke with, the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animal by should update the Animal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation 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 regul ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification. 2. DOCUMENTATIONS and POSTINGS	larly to
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 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 t IACUC webpage under 'Important Notices' for approximately six months: https://research.unc.edu/iacuc/	req'd Acceptable
All IACUC guidance documents can be found under the relevant heading on the IACUC Policy, Standards and Guidance page: https://research.unc.edu/lacuc/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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the	
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
3. HEALTH AND SAFETY	A anamériki.
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) Animal handlers registered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable 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 appropr	iately) N/A
Pharmaceutical or veterinary grade agents used (Section 11.3 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
5. 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 othe according to the Guide	
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

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Report Date: 07/12/2019

Report Date: 07/12/2019
12042

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

	pection Date: 05/31/201: pectors
nspection ID 12067	
nspection Type Informational	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted This Informational Inspection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if surv 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 do hesitate to contact us or check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invas procedures within the lab space, we must be contacted so that we can visit the space semiannually.	on't
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 th IACUC webpage under 'Important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable e main
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, tha are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by the la	it they b.
All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req unless USDA or DoD/VA	'd Acceptable
Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
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	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) An editable PDF can be found on the "Room Use" page of the lab's online EH&S lab safety plan. Please update information and signage for new MEJ sp	Acceptable ace.
Cage side chemical hazard identification training	N/A
Review of chemical hazard forms by laboratory personnel before initial use	Acceptable
. 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
). AGENTS ADMINISTERED	
Procedures exist for ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriate	ily) 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
PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
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 otherw according to the Guide	ise) N/A
Interior surfaces smooth and impervious to moisture	Acceptable
Fixed equipment is sanitizable	Acceptable
SURGICAL PROCEDURES: Anesthesia	
CONCIONEL INCOEDONEO, INICONO	Acceptable
	Acceptable
Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	Acceptable N/A
Adequate records of anesthesia and preoperative care	,

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Report Date: 05/31/2019 1 2 0 6 7

IACUC Inspection	s Details Report
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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: Inspect PI PID Inspect	tion Date:05/03/201 tors
Inspection ID 12112	101-3
nspection Type Informational	
Lab Coordinators	
1. BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted 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/iacu/). 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.	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 mail IACUC webpage under 'important Notices' for approximately six months: <u>https://research.unc.edu/iacuc/</u>	Acceptable
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	No Deficiency
The eyewash must be checked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks.	A man march 1 m
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 N/A
Cage side chemical hazard identification training Review of chemical hazard forms by laboratory personnel before initial use	
4 ANIMAL CARE	Acceptable
	Annandahla
Report animal health issues to Division of Comparative Medicine Clinical records for individual animals (covered species)	Acceptable 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) Inspectors reminded the lab 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
3. PHYSICAL PLANT	
Impervious surfaces	Acceptable
General cleanliness	Acceptable
Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	Acceptable
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
 SURGICAL PROCEDURES: Anesthesia Adequate records of anesthesia and preoperative care Proper monitoring for depth of surgical anesthesia (toe pinch documented?) 	N/A N/A

Report Date: 05/03/2019

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

•	on Date: 09/17/2019
PI PID Inspecto	rs
nspection ID 12276 Inspection Type Informational	
ab Coordinators	
Deficiency Count: 0 Inspectio	on Comments: 1
BRIEF SUMMARY OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted	Acceptable
inspectors spoke with the Laboratory Animal Coordinator (LAC), during the inspection. was very organized and thorough in responses. All animal handlers and others exposed to animals in the lab should update the Animal Handler form annually. The IACUC Orientatio required to be completed only once, while the DCM orientation must be renewed every 3 years.	her
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 re ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	gularly to
Please ensure that all new animal spaces are added to the protocol as soon as possible by sending an email to iacuc@med.unc.edu with all app protocol numbers and spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal these spaces.	
2. DOCUMENTATIONS and IACUC 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	Acceptable
How are approved applications and amendments available to and reviewed by laboratory personnel?	Acceptable
Other	N/A
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; Current copy of Needle Safety in Animal Studies posted	Acceptable
Proper carcass disposal/hazardous waste 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
If chemical/biological hazards in animal facility, using appropriate cage cards to identify hazards?	N/A
Review of chemical hazard forms by laboratory personnel before initial use	N/A
Other	N/A
I. ANIMAL CARE	
Does the lab know how to report animal health issues to DCM?	Acceptable
If USDA regulated species, are there clinical records for individual animals?	N/A
Analgesia/anesthesia use as described in approved ACAP	Acceptable
If euthanizing in lab space is euthanasia performed as described in approved protocol; secondary method tools sharp/a	
Means to track animal usage	Acceptable
Experimental Monitoring Documentation (weight loss, tumor size, etc.)	Acceptable
Toe Clip Discussion (max day 10, max 4 toes, 2 toes per foot (not the dewclaw), approved in ACAP)	N/A
Other	N/A
AGENTS ADMINISTERED	
Pharmaceutical or veterinary grade agents used (Section 11.3 required for Non-pharmaceutical grade)	Acceptable
Tribromoethanol (Avertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
Proper records maintained for agents used for anesthesia, analgesia, euthanasia, and acute intervention	Acceptable
Proper Controlled Substance Storage and Records; double lock, running balance	N/A
Is the lab ensuring drugs and biological agents are within expiration date (expired drugs separated or marked appropriated appropriate)	57 1
Other	N/A
N PHYSICAL PLANT- Lab Space	
	Acceptable
Impervious surfaces	
General cleanliness	Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they DCM biological monitoring schedule?	Acceptable on the N/A
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they DCM biological monitoring schedule? Other	Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations	Acceptable on the N/A N/A
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery)	Acceptable on the N/A N/A N/A
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or c according to the Guide	Acceptable on the N/A N/A N/A otherwise) N/A
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or cleaning to the Guide Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable on the N/A N/A N/A otherwise) N/A N/A N/A
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or c according to the Guide Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure Interior surfaces smooth and impervious to moisture	Acceptable N/A N/A N/A otherwise) N/A N/A N/A
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning; Are they DCM biological monitoring schedule? Other SURGICAL PROCEDURES: General Considerations Location minimizes traffic/contamination (survival surgery) Functional components (animal preparation, operating room, post-op recovery designed and separated (physically or cleaced in the Guide Rodent survival surgery clean and uncluttered; not used for anything else during the surgical procedure	Acceptable N/A N/A N/A http://www.acceptable N/A N/A N/A N/A

8. SURGICAL PROCEDURES: Anesthesia	
Adequate surgical records of anesthesia and preoperative care	N/A
Proper monitoring for depth of surgical anesthesia (toe pinch documented?)	N/A
Proper recovery monitoring; Records of postoperative care including analgesia agents (all species)	N/A
Procedures for administering and monitoring analgesia (survival surgery)	N/A
Other	N/A
9. SURGICAL PROCEDURES: Aseptic Technique for Survival Procedures	
Autoclave Sterilization procedures are appropriate (e.g.: storage, use of autoclave tape, expiration date visible)	N/A
Use of effective aseptic procedures for survival surgery; Preparation of sterile incision site and surrounding area	N/A
Cold Sterilization procedures are appropriate (e.g.: manufacturer recommended exposure time)	N/A
Use of sterile gloves and drapes (for surgeries where glove exposure to the animal occurs)	N/A
Closure method	N/A
Other	N/A



Report Date: 04/25/20

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

	Inspection Date: 05/15/2019 Inspectors
Inspection ID 10804	servzew 166183 w
Inspection Type Informational with	
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 Hand 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 re ensure all animal handlers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	gularly to
2. DOCUMENTATIONS and POSTINGS	Annondakia
Emergency, weekend, and holiday contact information visibly posted in animal housing area	Acceptable Acceptable
Current copy of Reporting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted All personnel handling animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no long	'
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 poste	
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 are updated on a regular basis. We recommend checking the website at least semiannually to update revised policies maintained in hard copy by	
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 Please ensure that isoflurane is described in all sections of the protocol where you intend to utilize it (including the non-survival section for perf Currently, only Avertin is approved for perfusion, and isoflurane is described for other procedures. This must be amended to the protocol immer intend to utilize isoflurane for perfusion.	
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 appro	priately) 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 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	Acceptable
Rups. mesearch. unc.edumieszorzh misonurane-brop-meurod-Log-rempiate.put	
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 o according to the Guide	,
Interior surfaces smooth and impervious to moisture	Acceptable

Report Date: 05/15/2019

IACUC Inspections Details Report



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)	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 ta	pe, expiration date visible) N/A
Use of effective aseptic procedures for survival surgery	N/A
Cold Sterilization procedures are appropriate (eg: manufacturer recommended expo	sure 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: 06/05/201 이 PID Inspectors	
nspection ID 11976	
nspection Type Informational with Procedural	
ab Coordinators	
I. 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 exsanguination as described in protocol #18-179 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.	
Based on conversation with today, we learned that the only animal procedures conducted in your lab space (outside of DCM space) are non-survival exsangunation and tissue harvest. This informational inspection fulfills the institutional goal that we visit each lab performing any animal work a 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/lacuc/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 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: <u>https://research.unc.edu/iacuc/</u>	Acceptable
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.	
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 Approved applications and amendments available to and reviewed by laboratory personnel conducting animal research	No Deficiency
Please submit and amendment to add MIRB 7224 to the protocol as soon as possible. This must be done prior to further animal activity in these spaces.	, ,
D. 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 I ANIMAL CARE	Acceptable
Report animal health issues to Division of Comparative Medicine	Associable
	Acceptable N/A
Clinical records for individual animals (covered species)	
Analgesia/anesthesia use as described in approved ACAP	Acceptable
Euthanasia performed as described in approved ACAP; tools sharp/adequate Means to track animal usage/Euthanasia log	Acceptable Acceptable
Means to track animal usage/Euthanasia log MONITORING DOCUMENTATION (weight, drugs, post op care, etc)	Acceptable
Toe Clip Discussion (max P10, 2 toes, approved in ACAP)	Acceptable
5. AGENTS ADMINISTERED	noopeene
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 PHYSICAL PLANT	Acceptable
Impervious surfaces	Acceptable
General cleanliness	Acceptable Acceptable
General cleanliness Behavior studies: condition of behavioral boxes/secondary enclosures, method and agents used for cleaning	N/A
Surgical PROCEDURES: General Considerations	13/75
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
according to the solution	
Interior surfaces smooth and impervious to moisture	Acceptable
Interior surfaces smooth and impervious to moisture Fixed equipment is sanitizable	Acceptable Acceptable

Adequate records of anesthesia and preoperative care

IACUC.	Inspections	Details	Report
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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: PI PID	Inspection Date: Inspectors	07/01/2019
	062 mspectors	
Info	ormational	
	t cedural	
ab Coordinators leficiency Count: 0	Inspection Com	nents: 6
BRIEF SUMMARY (OF WORK CONDUCTED IN THE LABORATORY	
Summary Conducted The inspector met with lab should update the A renewed every 3 years.	, the Laboratory Animal Coordinator (LAC), during the inspection. All animal handlers and others exposed to animals in the nimal Handler form annually. The IACUC Orientation is now required to be completed only once, while the DCM orientation must be	Acceptable
	w only sent as new and continuing protocols are submitted so PIs and/or LACs must check the Personnel tab in ACAP regularly to ers are up to date on all three certifications. Red check marks indicate the person is due for recertification.	
	ew animal spaces are added to the protocol as soon as possible by sending an email to <u>lacuc@med.unc.edu</u> with all applicable spaces to be added. Please indicate only spaces that you will take live animals. This must be done prior to further animal activity in	
surgeries are conducted hesitate to contact us of	ection fulfills the institutional goal that we visit each lab performing any animal work at least every two years, or annually if survival d by the lab. If you should need any assistance from the IACUC or Office of Animal Care and Use between inspections, please don't r check our website for information (https://research.unc.edu/iacuc/). If the lab begins performing surgeries or other more invasive ab space, we must be contacted so that we can visit the space semiannually.	
2. DOCUMENTATION	S and POSTINGS	
	I, and holiday contact information visibly posted in animal housing area	Acceptable
	rting an Animal Concern, CO2 Euthanasia Policy and Emergency Telephone Numbers posted bers and needle posting were available. No animals are brought to this space and CO2 is not performed in the area. So, these postings	Acceptable
All personnel handling unless USDA or DoD	g animals in the lab trained, certified and on application; Annual Renewals & Lit Searches no longer req'd /VA	Acceptable
Approved application	s and amendments available to and reviewed by laboratory personnel conducting animal research	Acceptable
3. HEALTH AND SAFE	τγ	
	ilized; Eyewash check documented/dust caps in place hecked and flushed monthly. The laboratory is responsible for maintaining documentation for these monthly checks.	No Deficiency
Inspectors noted an eye	wash in which the protective caps were not covering the eyewash. Please make sure that eyewashes are clean and covers are in place	
	build up and the eyewash can be used in case of emergency.	81/6
*	scavenging volatile anesthetics; check for Fair can weight	N/A Accentable
, , ,	al, hazardous waste disposal la Safatu in Apimal Studios pactod	Acceptable Acceptable
	le Safety in Animal Studies posted sal (especially hazard contaminated)	Acceptable
	stered with University Employee Occupational Health Clinic-UEOHC phone # 966-9119	Acceptable
	upon laboratory entry (i.e.; radiation, biohazard, chemicals, ABSL)	N/A
	azard identification training	Acceptable
•	azard forms by laboratory personnel before initial use	Acceptable
ANIMAL CARE		мисеріаліе
	issues to Division of Comparative Medicine	Acceptable
•	dividual animals (covered species)	N/A
	use as described in approved ACAP	Acceptable
•	d as described in approved ACAP; tools sharp/adequate	Acceptable
ł.	il usage/Euthanasia log	Acceptable
	JMENTATION (weight, drugs, post op care, etc)	Acceptable
	max P10, 2 toes, approved in ACAP)	N/A
5 AGENTS ADMINIST		
At the time of the inspe- expiration date informat	ensuring drugs and biological are within expiration date (expired drugs separated or marked appropriately) ction, there were two unopened bottles labeled USP Reference Standard Bupivacaine and Meloxicam. The bottles did not contain tion on the label. Outdated drugs used in research animals may adversely affect the animals' health and welfare or may confound id pharmaceuticals may not be used for anesthesia, analgesia, euthanasia, or acute intervention.	No Deficiency
Expiration Dating of US	to determine a 'use by' or expiration date for these products, please consult with the manufacturer to determine how to assess the P Reference Standards. If the manufacturer provides information pertaining to these two drugs, please maintain the information with icturer provides relevant 'use' dates, please indicate pertinent dates on the bottle label and indicate whether it is a 'use by' date or an	
Pharmaceutical or ve	terinary grade agents used (exception required for Non-pharmaceutical grade)	Acceptable
	ertin): preparation (including sterilization), storage, and proper maintenance- aware of Standard?	N/A
	bstance Storage and Records; double lock	N/A
Proper logs maintaine PHYSICAL PLANT	ed for agents used to administer anesthesia, analgesia and for euthanasia and acute intervention	Acceptable
Impervious surfaces	nat an electric in this appart. Convertee an days in the 2000 2019 6-100	N/A
	not conducted in this space. Surgeries are done in the BRIC or DCM facilities.	N/A
General cleanliness	idition of behavioral boxes/secondary enclosures, method and ager Obtain eddyr Rise for Animals. L	



Report Date: 07/01/2019
12052

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)	Acceptable
Use of effective aseptic procedures for survival surgery The lab is currently performing up to 10 surgeries using the same autoclaved instrument pack. Organic debris is wiped off instruments after each surgery and instruments are placed in a glass bead sterilizer before the next animal. The inspector feels that 10 surgeries is a large number of surgeries for the same autoclaved pack. However, in reviewing the current standard, there does not appear to be a limit to the number of serial survival surgeries using the same autoclaved pack.	Acceptable
https://research.unc.edu/files/2012/11/Guidelines-for-Aseptic-Technique-for-Rodent-Survival-Surgeries.pdf	
Please check the IACUC web site over the next 6 months to ensure you are working under the current Rodent Survival Surgery Standard in the event it is revised.	
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 Records and Reporting

Category E Protocols

April 2019 - October 2019

IACUC ID	Last Name	First Name	TITLE	SPECIES	Cat E Adults
18-207.0			Phase Variation of Clostridium difficile virulence factors-Hamster	Hamster	636
19-058.0			Evaluation of Protein based therapeutics for treating autoimmune disease	Mouse	372
19-065.0			Efficacy of Lidocaine-PLGA-Chitosan NP on oral mucositis	Mouse	8
19-066.0			Cardiovascular Differences Between Males and Females	Mouse	192
19-079.0			All-optical closed loop studies for next generation neural prostheses	Mouse	670
19-084.0			Prebiotics, gut homeostasis and health	Mouse	96
19-089.0		-	Opioids and Animal Models of PTSD	Rat	1884
19-095.0			Vaccines for Influenza and Cancer	Mouse	3600
19-097.0			Intestinal inflammation, fibrosis, and genotoxicity of the colonic-adherent microbiota	Mouse	2000
19-105.0			Understanding alpha-gal red meat allergy	Mouse	660
19-110.0			Genetically Engineered Models of Mammary Cancer Continued Therapeutic Testing	Mouse	16
19-114.0			Host factors controlling pathogenesis of neuroinvasive flaviviruses	Mouse	4280
19-117.0			Improving the Delivery of Therapeutic Microbes	Mouse	165
19-122.0			Mouse MRI protocol development	Mouse	180
19-123.0			Innate Immunity, Pathogens, Vaccines	Mouse	13690
19-142.0			Toga Virus Tropism for Bones, Joints, and CNS	Mouse	6348

		T	
19-151.0	Mouse Models of Inflammation	Mouse	2160
19-156.0	Genetic Manipulation of Intestinal Epithelial Stem Cells to study intestinal epithelial maintenance and differentiation	Mouse	360
19-161.0	Development of Intravenous AAV Vectors for Intractable Epilepsy	Rat	116
19-168.0	Understanding the Risk of Bat Coronavirus Emergence	Mouse	2160
19-169.0	Mouse Behavior Core	Mouse	635
19-176.0	Mechanisticanalysis of ARID mutations in hepatocellular carcinoma	Mouse	244
19-182.0	Phenotypic Analyses of Mutant Mice and Strains	Mouse	30
19-185.0	Viral and host determinants of flavivirus tissue tropism and pathogenesis	Mouse	4650
19-186.0	Neural Mechanisms of Alcohol Reinforcement and Self-administration in Mice	Mouse	192
19-189.0	Mouse inhibitory circuitry in alcohol and drugs of abuse	Mouse	400
19-190.0	Inhibitory signaling in a rat model of acute and chronic ethanol or drug exposure	Rat	400
19-193.0	Adeno-associated virus (AAV) based Passive Immunization to Protect MERS-CoV and SARS-CoV Infection	Mouse	144
19-194.0	Innate Immunity in Bullous Pemphigoid	Mouse	50
19-206.0	MERS-CoV Mouse Model for Vaccine and Therapeutic Testing - 2019	Mouse	11180
19-207.0	Efficacy of Coronavirus Vaccines and Monoclonal Antibodies in Mouse Models	Mouse	1815
19-209.0	Molecular physiology of ankyrins and spectrins	Mouse	624
19-213.0	How best to clear bacteria from CF lungs?	Mouse	72
19-221.0	Mirroring anorexia nervosa-like caloric restriction in mice	Mouse	320

19-225.0	Circuitry study of adult neurogenesis regulation and function	Mouse	100
	Tissue factor(TF) and protease-activated receptors(PARs) in autoimmune disease in		
19-238.0	mice	Mouse	1170

Exception Report

April 2019 - October 2019

IACUC ID	PI NAME	SPECIES	EXCEPTION TITLE
16-304.0		Mouse	Delayed weaning of animals
17-013.0		Mouse	Delayed weaning of animals
17-090.0		Rat	Exception from the cage density policy
17-119.0		Fish	Minimum Tank Volume
17-128.0		Mouse	Delayed weaning of animals
17-136.0		Mouse	Exception for more than 20 percent body weight/change in days
17-136.0		Mouse	Exception to Administered Agent Standard
17-167.0		Mouse	Delayed weaning of animals
18-002.0		Mouse	Delayed weaning of animals
18-129.0		Mouse	Delayed weaning of animals
18-168.0		Rat	Exception from the Guide requirements for housing of animals
18-174.0		Mouse	Delayed weaning of animals
18-212.0		Mouse	Delayed weaning of animals
18-239.0		Mouse	Delayed weaning of animals
18-243.0		Mouse	Exception from the Guide requirements for housing of animals
19-007.0		Mouse	Delayed weaning of animals
19-016.0		Rat	Elimination of environmental enrichment from animal cages
19-083.0		Multiple Species	Use of a provisional housing area (classroom)
			Enzymatic digestion of embryos into a cell suspension as the secondary method of
19-088.0		Fish	euthanasia.
19-089.0		Rat	Allow food on the floor of cage
19-089.0		Rat	Euthanasia of rats over 200 g via physical method of euthanasia without anesthesia
19-090.0		Rat	Allow food on the floor of cage
19-090.0		Rat	Euthanasia of rats over 200 g via physical method of euthanasia without anesthesia
19-096.0		Ferret	Survival surgery performed in lab space/APSE

19-106.0	Mouse	Delayed weaning of animals
19-114.0	Mouse	Delayed wearing of animals
19-121.0	Mouse	Delayed wearing of animals
19-123.0	Mouse	Delayed wearing of animals
19-123.0	Mouse	Exception to allow animals to lose more than 20% body weight
	Wibuse	Animal Procedural Space Exception (Housing/Holding of animals outside of a DCM
19-132.0	Fish	animal facility for greater than 12 hours)
19-132.0	Fish	AVMA guidelines for fish euthanasia
19-132.0	Fish	Exceed tank density requirements
19-137.0	Multiple Species	Rapid cooling then deep freezing method of euthanasia
	· · · ·	Exception from the tumor policy (Increase in tumor size or allowing of tumors to
19-148.0	Mouse	become ulcerated or necrotic)
19-151.0	Mouse	Exception from the cage density policy
		Exception from the tumor policy (Increase in tumor size or allowing of tumors to
19-153.0	Mouse	become ulcerated or necrotic)
19-156.0	Mouse	Food/Water restriction
19-164.0	Fish	Rapid cooling then deep freezing method of euthanasia
19-168.0	Mouse	Exception to allow animals to lose more than 20% body weight
19-185.0	Mouse	Exception to allow animals to lose more than 20% body weight
19-186.0	Mouse	Elimination of environmental enrichment from animal cages
19-193.0	Mouse	Exception to allow animals to lose more than 20% body weight
19-198.0	Guinea Pig	Single housing of animals
19-199.0	Guinea Pig	Single housing of animals
19-200.0	Mouse	Delayed weaning of animals
19-206.0	Mouse	Exception to allow animals to lose more than 20% body weight
19-207.0	Mouse	Exception to allow animals to lose more than 20% body weight
19-209.0	Mouse	Delayed weaning of animals
19-221.0	Mouse	Exception to allow animals to lose more than 20% body weight
19-221.0	Mouse	Exception to orally gavage fecal slurries into mice

19-230.0	Mouse	30% food restriction
19-230.0	Mouse	Exception to allow animals to lose more than 20% body weight

USDA Approval Report

April 2019 - October 2019

IACUC ID	FIRST NAME	LAST NAME	SPECIES	TITLE	APPROVAL DATE
18-135.0	- '		Pig	Anatomic optical coherence tomography for quantitative bronchoscopy	4/5/2019
18-060.0	_	_	Guinea Pig	Isolation of primary peritoneal and alveolar macrophages from guinea pigs	4/29/2019
18-156.0	_		Dog	ARFI imaging for real-time, in vivo monitoring of Syvek Patch- induced hemostasis in arterial punctures	5/3/2019
18-146.0	-	-	Sheep	Large animal model of steroid induced glaucoma	5/3/2019
19-101.0	-	-	Pig	Stationary Digital Tomosynthesis for Transbronchial Biopsy Guidance	05/09/19
16-189.0	-		Pig	A Novel Therapy to Treat Atherosclerosis	5/16/2019
19-124.0	_	-	Gerbil	Measurements of Cochlear Synaptopathy Using Electrocochleography	5/23/19
17-163.0	_		Pig	The Carolina's Pediatric Airway Course	6/7/19
17-182.0		-	Ferret	Establishing Network Targets during Development for Non- Invasive Brain Stimulation	6/7/2019
18-169.0			Guinea Pig	Aerosol Delivery of CPZEN-45 for Treatment of non- tuberculous mycobacterial (NTMs) infections	6/7/2019
18-222.0	-	-	Hamster	Respiratory Virus Infection of Hamster Airways	7/12/2019
18-207.0	-	,	Hamster	Phase Variation of Clostridium difficile virulence factors- Hamster	7/12/2019

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			VisR Ultrasound for Noninvasively Monitoring Renal Allograft	
18-238.0		Pig	Health	7/12/2019
10 120 0		Dia	Dia madala far dialusia yasayılar assass improyoment	7/16/2010
19-120.0	·	Pig	Pig models for dialysis vascular access improvement	7/16/2019
19-165.0		Pig	A Novel Therapy to Treat Atherosclerosis	7/30/2019
17-211.0		Guinea Pig	Advanced Guinea Pig Techniques	8/2/2019
			The Relationship between Pyrazinamide Pharmacokinetics,	
			Tuberculosis Disease, and Host Immune Responses in M.	
19-198.0		Guinea Pig	tuberculosis infected animals	8/12/2019
	-		DET imaging with neuronal recentor imaging agents on non	
16-242.0		Non-human Primate	PET imaging with neuronal receptor imaging agents on non- human primate model	8/22/2019
10-242.0	· -		numan primate model	
			Two-photon imaging of cerebellar associative learning in	
19-096.0		Ferret	awake behaving ferrets	8/23/2019
			The Relationship between Pyrazinamide Pharmacokinetics,	
19-199.0		Guinea Pig	Tuberculosis Disease, and Host Immune Responses	8/26/2019
	· -			
			Bronchoscopic Steerable Needles for Transparenchymal Access	
17-135.0		Pig	to Lung Nodules	8/28/2019
			A Control Systems Approach to Understanding Brain and	
18-047.0		Ferret	Behavior	9/6/2019
	-			
			Orbital and central cerebrospinal fluid pressure dynamics: A	
17-223.0		Pig	comprehensive investigation of retrobulbar pressure	9/6/2019
			Introportivo physiological monitoring during confileer	
18-274.0		Gerbil	Intraoperative physiological monitoring during cochlear implantation	9/6/2019
10-2/4.0	- , ·			5/0/2015

		An Academic Industrial Partnership for the Development of High Frame-Rate Transcranial Super Resolution Ultrasound	
17-230.0	Pig	Imaging	9/6/2019
17-134.0	Pig	Insulin Resistant Pigs	9/10/2019
16-282.0	Rabbit	Role of integrins/ECM ligands in controling IGF actions	9/10/2019
18-192.0	Pig	Role of diabetes and nitic oxide release duration on analytical performance of in vivo glucose biosensors	9/11/2019
19-228.0	Guinea Pig	Bioengineering Catalytically Active Grafts for Vascular Surgery	9/19/2019
18-247.0	Rabbit	Investigation of CF Rabbit Model	9/30/2019
17-268.0	Ferret	Airway Clearance in neonatal Ferrets continued	10/4/2019
18-297.0	Deer Mouse	Collateral genetics	10/9/2019
17-087.0	Dog	Maintenance of Animal Models of Human Hemophilia and vWD	10/10/2019

Protocols, Annual Renewals and Title Funding Changes

May 2019 - October 2019

IACUC Meeting Month	FULL	ANNUAL	TOTAL	T/F
May-19	25	3	28	10
June-19	27	4	31	6
July-19	17	3	20	9
Aug-19	26	4	30	8
Sept-19	38	3	41	7
Oct-19	22	2	24	6
Totals	155	19	174	46

Amendment Totals May 2019-Oct 2019

		Designated			
Month	Amendments	Member Review	Personnel	Full Committee	Veterinary Verification
May - 19	96	42	46	5	8
June-19	148	47	91	5	11
July-19	136	48	76	2	12
Aug-19	126	27	91	3	8
Sept-19	107	34	69	3	4
Oct-19	137	39	90	5	8
TOTAL	750	237	463	23	51

Reports to the United States Department of Agriculture (USDA)

IACUC Training Reports

IACUC Training: # individuals trained in each type of training offered

# Trainees	April 2015	Oct 2015	April 2016	Oct 2016	April 2017	Oct 2017	April 2018	Oct 2018	April 2019	Oct 2019	% Change October 2018 : October 2019
Mouse	97	122	136	143	115	134	123	152	121	149	↓2%
Rat	17	26	35	45	36	42	34	43	28	32	↓25%
Aseptic	35	59	38	50	52	56	34	46	52	63	个40%
LAC lecture	24	28	810	47	23	37	35	32	25	30	√.6%
Mouse Cage Density Lecture	58	68	56	86	51	76	45	53	43	79	个49%
Colony Mgmt. Lecture	2	7	8	14	10	0	-13	0	0	0	Optional- none requested, so not offered
One on Ones	106	115	103	100	56	78	67	38	75	115	↑17%

Date	Medium	Subject/Class	Trainer(s)	Trainee	PI Laboratory	Proficiency Rating
4/17/2019	Hands-on	One-on-One			•	2
4/17/2019	Hands-on	One-on-One				1-LAC
4/17/2019	Hands-on	One-on-One				2-LAC
4/17/2019	Hands-on	One-on-One				2
4/17/2019	Hands-on	One-on-One				1-LAC
4/17/2019	Hands-on	One-on-One				2
4/22/2019	Hands-on	One-on-One				2
4/22/2019	Hands-on	One-on-One				2
5/1/2019	Hands-on	One-on-One				2
5/7/2019	Hands-on	One-on-One				1
5/7/2019	Hands-on	One-on-One				1-LAC
5/17/2019	Hands-on	One-on-One				2-LAC
5/17/2019	Hands-on	One-on-One				2-LAC
5/17/2019	Hands-on	One-on-One				2
5/17/2019	Hands-on	One-on-One				2
5/17/2019	Hands-on	One-on-One				2
5/17/2019	Hands-on	One-on-One				1-LAC
5/20/2019	Hands-on	One-on-One				1
5/20/2019	Hands-on	One-on-One				2
5/20/2019	Hands-on	One-on-One				2
5/28/2019	Hands-on	One-on-One				2-RAT
5/28/2019	Hands-on	One-on-One				2-LAC (RAT)
5/28/2019	Hands-on	One-on-One				2
5/28/2019	Hands-on	One-on-One				2
5/28/2019	Hands-on	One-on-One				1-LAC (RAT)
6/11/2019	Hands-on	One-on-One				3

One on One Training (Hands On and Lecture) Total: 115

6/11/2019	Hands-on	One-on-One
6/11/2019	Hands-on	One-on-One
6/14/2019	Hands-on	One-on-One
6/17/2019	Hands-on	One-on-One
6/17/2019	Hands-on	One-on-One
6/17/2019	Hands-on	One-on-One
6/28/2019	Hands-on	One-on-One
7/1/2019	Hands-on	One-on-One
7/9/2019	Hands-on	One-on-One
7/19/2019	Hands-on	One-on-One

7/19/2019	Hands-on	One-on-One
7/19/2019	Hands-on	One-on-One
7/19/2019	Hands-on	One-on-One
7/19/2019	Hands-on	One-on-One
7/23/2019	Hands-on	One-on-One
7/29/2019	Hands-on	One-on-One
7/29/2019	Hands-on	One-on-One
8/9/2019	Hands-on	One-on-One
8/16/2019	Hands-on	One-on-One
8/22/2019	Hands-on	One-on-One
8/22/2019	Hands-on	One-on-One
8/22/2019	Hands-on	One-on-One

8/26/2019	Hands-on	One-on-One
8/26/2019	Hands-on	One-on-One
8/28/2019	Hands-on	One-on-One
9/5/2019	Hands-on	One-on-One
9/4/2019	Hands-on	One-on-One
9/4/2019	Hands-on	One-on-One
9/16/2019	Lecture	One-on-One
9/19/2019	Hands-on	One-on-One
9/23/2019	Hands-on	One-on-One

9/23/2019	Hands-on	One-on-One	2-LAC
10/2/2019	Hands-on	One-on-One	1-LAC
10/2/2019	Hands-on	One-on-One	1-LAC(RAT
10/2/2019	Hands-on	One-on-One	1-LAC
10/2/2019	Hands-on	One-on-One	1

Date	Medium	Subject/Class	Trainer(s)	Trainee
4/15/2019	Lecture	Laboratory Coordinator Lecture		
4/15/2019	Lecture	Laboratory Coordinator Lecture	T	
4/15/2019	Lecture	Laboratory Coordinator Lecture	T	
5/6/2019	Lecture	Laboratory Coordinator Lecture	T	
5/6/2019	Lecture	Laboratory Coordinator Lecture	T	
5/6/2019	Lecture	Laboratory Coordinator Lecture	T	
6/19/2019	Lecture	Laboratory Coordinator Lecture	Ť	
6/19/2019	Lecture	Laboratory Coordinator Lecture	1	
6/19/2019	Lecture	Laboratory Coordinator Lecture	1	
6/19/2019	Lecture	Laboratory Coordinator Lecture	†	
6/19/2019	Lecture	Laboratory Coordinator Lecture	1	
6/19/2019	Lecture	Laboratory Coordinator Lecture	†	
6/19/2019	Lecture	Laboratory Coordinator Lecture	+	
6/19/2019	Lecture	Laboratory Coordinator Lecture	1	
6/19/2019	Lecture	Laboratory Coordinator Lecture	1	
7/15/2019	Lecture	Laboratory Coordinator Lecture	†	
7/15/2019	Lecture	Laboratory Coordinator Lecture	†	
7/15/2019	Lecture	Laboratory Coordinator Lecture	+	
7/15/2019	Lecture	Laboratory Coordinator Lecture		
7/15/2019	Lecture	Laboratory Coordinator Lecture	†	
7/15/2019	Lecture	Laboratory Coordinator Lecture	+	
7/15/2019	Lecture	Laboratory Coordinator Lecture	+	
7/15/2019	Lecture	Laboratory Coordinator Lecture	1	
8/6/2019	Lecture	Laboratory Coordinator Lecture	1	
8/6/2019	Lecture	Laboratory Coordinator Lecture	Ť	
8/6/2019	Lecture	Laboratory Coordinator Lecture	Ť	
8/6/2019	Lecture	Laboratory Coordinator Lecture	Ť	
8/6/2019	Lecture	Laboratory Coordinator Lecture	Ť	
8/6/2019	Lecture	Laboratory Coordinator Lecture	Ť	
8/6/2019	Lecture	Laboratory Coordinator Lecture	Ť	

Laboratory Animal Coordinator Lecture Total: 30

Date	Medium	Subject/Class	Trainer(s)	Trainee
4/15/2019	Lecture	Mouse Cage Density Lecture		
4/15/2019	Lecture	Mouse Cage Density Lecture		-
4/15/2019	Lecture	Mouse Cage Density Lecture		-
4/15/2019	Lecture	Mouse Cage Density Lecture	-	-
4/15/2019	Lecture	Mouse Cage Density Lecture		-
4/15/2019	Lecture	Mouse Cage Density Lecture		-
4/15/2019	Lecture	Mouse Cage Density Lecture	~	-
4/15/2019	Lecture	Mouse Cage Density Lecture	-	-
4/15/2019	Lecture	Mouse Cage Density Lecture	-	-
4/15/2019	Lecture	Mouse Cage Density Lecture	-	-
4/15/2019	Lecture	Mouse Cage Density Lecture	-	-
4/15/2019	Lecture	Mouse Cage Density Lecture	-	-
4/15/2019	Lecture	Mouse Cage Density Lecture	-	-
5/6/2019	Hands-on	Mouse Cage Density Lecture	-	-
5/6/2019	Hands-on	Mouse Cage Density Lecture	-	-
5/6/2019	Hands-on	Mouse Cage Density Lecture		-
5/6/2019	Hands-on	Mouse Cage Density Lecture	-	-
5/6/2019	Hands-on	Mouse Cage Density Lecture		-
5/6/2019	Hands-on	Mouse Cage Density Lecture	-	-
5/6/2019	Hands-on	Mouse Cage Density Lecture		-
5/6/2019	Hands-on	Mouse Cage Density Lecture	-	-
5/6/2019	Hands-on	Mouse Cage Density Lecture		-
5/6/2019	Hands-on	Mouse Cage Density Lecture		-
5/6/2019	Hands-on	Mouse Cage Density Lecture	-	-
6/19/2019	Lecture	Mouse Cage Density Lecture	-	-
6/19/2019	Lecture	Mouse Cage Density Lecture		-
6/19/2019	Lecture	Mouse Cage Density Lecture	-	-
6/19/2019	Lecture	Mouse Cage Density Lecture		-
6/19/2019	Lecture	Mouse Cage Density Lecture		-
6/19/2019	Lecture	Mouse Cage Density Lecture		-
6/19/2019	Lecture	Mouse Cage Density Lecture		
6/19/2019	Lecture	Mouse Cage Density Lecture	-	-

Mouse Cage Density Policy Lecture Total: 79

6/19/2019	Lecture	Mouse Cage Density Lecture	······································	
6/19/2019	Lecture	Mouse Cage Density Lecture		•
6/19/2019	Lecture	Mouse Cage Density Lecture		•
6/19/2019	Lecture	Mouse Cage Density Lecture		•
6/19/2019	Lecture	Mouse Cage Density Lecture		-
6/19/2019	Lecture	Mouse Cage Density Lecture		-
6/19/2019	Lecture	Mouse Cage Density Lecture		-
6/19/2019	Lecture	Mouse Cage Density Lecture		•
6/19/2019	Lecture	Mouse Cage Density Lecture		
6/19/2019	Lecture	Mouse Cage Density Lecture	Ē	-
7/15/2019	Lecture	Mouse Cage Density Lecture		•
7/15/2019	Lecture	Mouse Cage Density Lecture	Ē	•
7/15/2019	Lecture	Mouse Cage Density Lecture		-
7/15/2019	Lecture	Mouse Cage Density Lecture		•
7/15/2019	Lecture	Mouse Cage Density Lecture		•
7/15/2019	Lecture	Mouse Cage Density Lecture		
7/15/2019	Lecture	Mouse Cage Density Lecture		
7/15/2019	Lecture	Mouse Cage Density Lecture		
7/15/2019	Lecture	Mouse Cage Density Lecture		
7/15/2019	Lecture	Mouse Cage Density Lecture		
7/15/2019	Lecture	Mouse Cage Density Lecture		
7/15/2019	Lecture	Mouse Cage Density Lecture	Ē	
7/15/2019	Lecture	Mouse Cage Density Lecture		
8/6/2019	Lecture	Mouse Cage Density Lecture	Ē	
8/6/2019	Lecture	Mouse Cage Density Lecture		
8/6/2019	Lecture	Mouse Cage Density Lecture	Ē.	
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8/6/2019	Lecture	Mouse Cage Density Lecture
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8/6/2019	Lecture	Mouse Cage Density Lecture
8/6/2019	Lecture	Mouse Cage Density Lecture
9/9/2019	Lecture	Mouse Cage Density Lecture
9/9/2019	Lecture	Mouse Cage Density Lecture
9/9/2019	Lecture	Mouse Cage Density Lecture
9/9/2019	Lecture	Mouse Cage Density Lecture
9/9/2019	Lecture	Mouse Cage Density Lecture
9/9/2019	Lecture	Mouse Cage Density Lecture
9/9/2019	Lecture	Mouse Cage Density Lecture
9/9/2019	Lecture	Mouse Cage Density Lecture
9/9/2019	Lecture	Mouse Cage Density Lecture
9/9/2019	Lecture	Mouse Cage Density Lecture

Mouse Handling and Techniques Class Total:149

Date	Medium	Subject/Class	Trainer(s)	Trainee	PI Laboratory	Proficiency Rating
4/16/2019	Hands-on	Mouse Handling Class				2
4/16/2019	Hands-on	Mouse Handling Class				2-LAC
4/16/2019	Hands-on	Mouse Handling Class				2
4/16/2019	Hands-on	Mouse Handling Class				1
4/16/2019	Hands-on	Mouse Handling Class				2
4/16/2019	Hands-on	Mouse Handling Class				2
4/16/2019	Hands-on	Mouse Handling Class				2
4/16/2019	Hands-on	Mouse Handling Class				2
4/24/2019	Hands-on	Mouse Handling Class				2
5/2/2019	Hands-on	Mouse Handling Class				2
5/2/2019	Hands-on	Mouse Handling Class				2
5/2/2019	Hands-on	Mouse Handling Class				2
5/2/2019	Hands-on	Mouse Handling Class				2
5/2/2019	Hands-on	Mouse Handling Class				3-LAC
5/2/2019	Hands-on	Mouse Handling Class				2
5/2/2019	Hands-on	Mouse Handling Class				3
5/8/2019	Hands-on	Mouse Handling Class				2
5/8/2019	Hands-on	Mouse Handling Class				3
5/8/2019	Hands-on	Mouse Handling Class				2
5/8/2019	Hands-on	Mouse Handling Class				3
5/8/2019	Hands-on	Mouse Handling Class				2
5/8/2019	Hands-on	Mouse Handling Class				2
5/8/2019	Hands-on	Mouse Handling Class				2
5/8/2019	Hands-on	Mouse Handling Class				2
5/16/2019	Hands-on	Mouse Handling Class				2
5/16/2019	Hands-on	Mouse Handling Class				1-LAC
5/16/2019	Hands-on	Mouse Handling Class				3
5/16/2019	Hands-on	Mouse Handling Class				2
5/16/2019	Hands-on	Mouse Handling Class	Ī			2
5/16/2019	Hands-on	Mouse Handling Class				3-LAC
5/16/2019	Hands-on	Mouse Handling Class	1			2
5/29/2019	Hands-on	Mouse Handling Class	1			1

5/29/2019	Hands-on	Mouse Handling Class		2
5/29/2019	Hands-on	Mouse Handling Class	-	3
5/29/2019	Hands-on	Mouse Handling Class	-	1-LAC
5/29/2019	Hands-on	Mouse Handling Class	-	1
5/29/2019	Hands-on	Mouse Handling Class	-	2
6/5/2019	Hands-on	Mouse Handling Class	-	3
6/5/2019	Hands-on	Mouse Handling Class	-	2
6/5/2019	Hands-on	Mouse Handling Class	-	2
6/5/2019	Hands-on	Mouse Handling Class	-	2
6/5/2019	Hands-on	Mouse Handling Class	-	2
6/5/2019	Hands-on	Mouse Handling Class	-	3
6/5/2019	Hands-on	Mouse Handling Class	-	2
6/18/2019	Hands-on	Mouse Handling Class	-	2
6/18/2019	Hands-on	Mouse Handling Class	-	2
6/18/2019	Hands-on	Mouse Handling Class		3
6/18/2019	Hands-on	Mouse Handling Class		3
6/18/2019	Hands-on	Mouse Handling Class		3
6/18/2019	Hands-on	Mouse Handling Class	-	2-LAC
6/18/2019	Hands-on	Mouse Handling Class		2-LAC
6/18/2019	Hands-on	Mouse Handling Class		1 & 2 (IM, IV)L/
6/27/2019	Hands-on	Mouse Handling Class	-	3
6/27/2019	Hands-on	Mouse Handling Class	-	3
6/27/2019	Hands-on	Mouse Handling Class	_	3
6/27/2019	Hands-on	Mouse Handling Class	-	2-LAC
6/27/2019	Hands-on	Mouse Handling Class	_	2
6/27/2019	Hands-on	Mouse Handling Class		2
6/27/2019	Hands-on	Mouse Handling Class		1-LAC
7/10/2019	Hands-on	Mouse Handling Class		2

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7/10/2019	Hands-on	Mouse Handling Class	
7/10/2019	Hands-on	Mouse Handling Class	
7/10/2019	Hands-on	Mouse Handling Class	2-
7/10/2019	Hands-on	Mouse Handling Class	
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7/10/2019	Hands-on	Mouse Handling Class	
7/10/2019	Hands-on	Mouse Handling Class	
7/10/2019	Hands-on	Mouse Handling Class	2-1
7/16/2019	Hands-on	Mouse Handling Class	
7/16/2019	Hands-on	Mouse Handling Class	
7/16/2019	Hands-on	Mouse Handling Class	
7/16/2019	Hands-on	Mouse Handling Class	
7/16/2019	Hands-on	Mouse Handling Class	
7/16/2019	Hands-on	Mouse Handling Class	1
7/16/2019	Hands-on	Mouse Handling Class	
7/24/2019	Hands-on	Mouse Handling Class	
7/24/2019	Hands-on	Mouse Handling Class	
7/24/2019	Hands-on	Mouse Handling Class	
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7/24/2019	Hands-on	Mouse Handling Class	
7/24/2019	Hands-on	Mouse Handling Class	
7/24/2019	Hands-on	Mouse Handling Class	

8/1/2019	Hands-on	Mouse Handling Class		3
8/1/2019	Hands-on	Mouse Handling Class		3
8/1/2019	Hands-on	Mouse Handling Class		2
8/1/2019	Hands-on	Mouse Handling Class		2
8/1/2019	Hands-on	Mouse Handling Class		3
8/1/2019	Hands-on	Mouse Handling Class		2
8/1/2019	Hands-on	Mouse Handling Class		2-LAC
8/1/2019	Hands-on	Mouse Handling Class		2
8/7/2019	Hands-on	Mouse Handling Class		3
8/7/2019	Hands-on	Mouse Handling Class		3
8/7/2019	Hands-on	Mouse Handling Class		2
8/7/2019	Hands-on	Mouse Handling Class		2
8/7/2019	Hands-on	Mouse Handling Class		2
8/7/2019	Hands-on	Mouse Handling Class		1
8/13/2019	Hands-on	Mouse Handling Class		2
8/13/2019	Hands-on	Mouse Handling Class		2
8/13/2019	Hands-on	Mouse Handling Class		1
8/13/2019	Hands-on	Mouse Handling Class		2
8/13/2019	Hands-on	Mouse Handling Class		3
8/13/2019	Hands-on	Mouse Handling Class		1
8/28/2019	Hands-on	Mouse Handling Class		2
8/28/2019	Hands-on	Mouse Handling Class		2
8/28/2019	Hands-on	Mouse Handling Class		2
8/28/2019	Hands-on	Mouse Handling Class		2
8/28/2019	Hands-on	Mouse Handling Class		1
8/28/2019	Hands-on	Mouse Handling Class		2
9/4/2019	Hands-on	Mouse Handling Class		3
9/4/2019	Hands-on	Mouse Handling Class		2
9/4/2019	Hands-on	Mouse Handling Class		3
9/4/2019	Hands-on	Mouse Handling Class		3
9/4/2019	Hands-on	Mouse Handling Class		2
9/4/2019	Hands-on	Mouse Handling Class		2
9/11/2019	Hands-on	Mouse Handling Class	· · · · · · · · · · · · · · · · · · ·	2

9/11/2019	Hands-on	Mouse Handling Class
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9/11/2019	Hands-on	Mouse Handling Class
9/11/2019	Hands-on	Mouse Handling Class
9/19/2019	Hands-on	Mouse Handling Class
9/19/2019	Hands-on	Mouse Handling Class
9/19/2019	Hands-on	Mouse Handling Class
9/19/2019	Hands-on	Mouse Handling Class
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9/19/2019	Hands-on	Mouse Handling Class
9/19/2019	Hands-on	Mouse Handling Class
9/19/2019	Hands-on	Mouse Handling Class
9/27/2019	Hands-on	Mouse Handling Class
9/27/2019	Hands-on	Mouse Handling Class
9/27/2019	Hands-on	Mouse Handling Class
9/27/2019	Hands-on	Mouse Handling Class
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9/27/2019	Hands-on	Mouse Handling Class
9/27/2019	Hands-on	Mouse Handling Class

9/27/2019	Hands-on	Mouse Handling Class	3
9/27/2019	Hands-on	Mouse Handling Class	 2
10/4/2019	Hands-on	Extra Mouse Handling Class	2
10/4/2019	Hands-on	Extra Mouse Handling Class	2
10/4/2019	Hands-on	Extra Mouse Handling Class	3
10/4/2019	Hands-on	Extra Mouse Handling Class	3
10/4/2019	Hands-on	Extra Mouse Handling Class	3
10/4/2019	Hands-on	Extra Mouse Handling Class	3
10/4/2019	Hands-on	Extra Mouse Handling Class	3

Rat Handling and Techniques Class Total: 32

Date	Medium	Subject/Class	Trainer(s)	Trainee	PI Laboratory	Proficiency Rating
5/14/2019	Hands-on	Rat Handling Techniques				3
5/14/2019	Hands-on	Rat Handling Techniques	Ť			3
5/14/2019	Hands-on	Rat Handling Techniques				2
5/14/2019	Hands-on	Rat Handling Techniques				2
6/20/2019	Hands-on	Rat Handling Techniques				2
6/20/2019	Hands-on	Rat Handling Techniques	1			3
6/20/2019	Hands-on	Rat Handling Techniques	+			2
6/20/2019	Hands-on	Rat Handling Techniques	Ť			2-LAC
6/20/2019	Hands-on	Rat Handling Techniques	Ť			2-LAC
6/20/2019	Hands-on	Rat Handling Techniques				2
6/20/2019	Hands-on	Rat Handling Techniques	1			3
6/20/2019	Hands-on	Rat Handling Techniques	+			3
6/20/2019	Hands-on	Rat Handling Techniques	+			3
6/20/2019	Hands-on	Rat Handling Techniques	1			3
7/18/2019	Hands-on	Rat Handling Techniques				2
7/18/2019	Hands-on	Rat Handling Techniques				2-LAC
7/18/2019	Hands-on	Rat Handling Techniques				3
7/18/2019	Hands-on	Rat Handling Techniques				2-LAC
8/14/2019	Hands-on	Rat Handling Techniques				2
8/14/2019	Hands-on	Rat Handling Techniques				1-LAC
8/14/2019	Hands-on	Rat Handling Techniques				2
8/14/2019	Hands-on	Rat Handling Techniques				3
8/14/2019	Hands-on	Rat Handling Techniques				2-LAC
8/14/2019	Hands-on	Rat Handling Techniques				2
9/17/2019	Hands-on	Rat Handling Techniques				1
9/17/2019	Hands-on	Rat Handling Techniques				1
9/17/2019	Hands-on	Rat Handling Techniques	Ť			1
9/17/2019	Hands-on	Rat Handling Techniques	T			2
9/17/2019	Hands-on	Rat Handling Techniques	T			2
9/17/2019	Hands-on	Rat Handling Techniques	T			2
9/17/2019	Hands-on	Rat Handling Techniques	Ī			2-LAC
9/17/2019	Hands-on	Rat Handling Techniques	T			3

Date	Medium	Subject/Class	Trainer(s)	Trainee	PI Laboratory	Proficiency Rating
4/23/2019	Hands-on	Aseptic Techniques		·	-	3
4/23/2019	Hands-on	Aseptic Techniques	n			3-LAC
4/23/2019	Hands-on	Aseptic Techniques	-			3
4/23/2019	Hands-on	Aseptic Techniques	•			2
4/23/2019	Hands-on	Aseptic Techniques	-			2
4/23/2019	Hands-on	Aseptic Techniques	-			2
4/23/2019	Hands-on	Aseptic Techniques				1-LAC
5/22/2019	Hands-on	Aseptic Techniques	-			3
5/22/2019	Hands-on	Aseptic Techniques	-			2
5/22/2019	Hands-on	Aseptic Techniques	~			3
5/22/2019	Hands-on	Aseptic Techniques	~			3
5/22/2019	Hands-on	Aseptic Techniques	•			2
5/22/2019	Hands-on	Aseptic Techniques	-			1
5/22/2019	Hands-on	Aseptic Techniques	-			1
5/22/2019	Hands-on	Aseptic Techniques	•			2-LAC
5/22/2019	Hands-on	Aseptic Techniques	-			1
6/25/2019	Hands-on	Aseptic Techniques	-			2
6/25/2019	Hands-on	Aseptic Techniques	-			2-LAC
6/25/2019	Hands-on	Aseptic Techniques	-			2
6/25/2019	Hands-on	Aseptic Techniques	-			3
6/25/2019	Hands-on	Aseptic Techniques	-			2
6/25/2019	Hands-on	Aseptic Techniques	-			2
6/25/2019	Hands-on	Aseptic Techniques	~			3
7/25/2019	Hands-on	Aseptic Techniques	•			2-LAC
7/25/2019	Hands-on	Aseptic Techniques	•			3
7/25/2019	Hands-on	Aseptic Techniques	-			2
7/25/2019	Hands-on	Aseptic Techniques	-			2
7/25/2019	Hands-on	Aseptic Techniques	-			3
7/25/2019	Hands-on	Aseptic Techniques	•			2
7/25/2019	Hands-on	Aseptic Techniques				1
8/20/2019	Hands-on	Extra Aseptic Tech Class	-			1
8/22/2019	Hands-on	Aseptic Techniques				1

Aseptic Techniques Class Total: 63

		······
8/22/2019	Hands-on	Aseptic Techniques
9/10/2019	Hands-on	Extra Aseptic Techniques
9/10/2019	Hands-on	Extra Aseptic Techniques
9/10/2019	Hands-on	Extra Aseptic Techniques
9/10/2019	Hands-on	Extra Aseptic Techniques
9/10/2019	Hands-on	Extra Aseptic Techniques
9/102019	Hands-on	Extra Aseptic Techniques
9/10/2019	Hands-on	Extra Aseptic Techniques
9/10/2019	Hands-on	Extra Aseptic Techniques
9/24/2019	Hands-on	Aseptic Techniques
9/24/2019	Hands-on	Aseptic Techniques
9/24/2019	Hands-on	Aseptic Techniques
9/24/2019	Hands-on	Aseptic Techniques
9/24/2019	Hands-on	Aseptic Techniques
9/24/2019	Hands-on	Aseptic Techniques
10/7/2019	Hands-on	Aseptic Techniques
10/1/2010	nunus-on	Aseptie reeningues

Occupational Health and Safety of Personnel

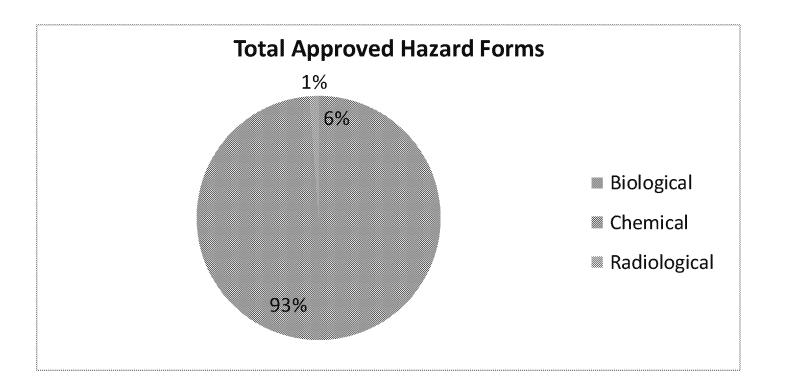
IACUC – SEMI ANNUAL REVIEW OCTOBER 23RD, 2019

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 **220** (3328 lifetime)
- Chemical 482 (9506 lifetime)
- Radiological 6 (266 lifetime)



OVERVIEW OF EHS PROGRAM

- Compliance report (training and medical surveillance) sent weekly to DCM Training Coordinators
 - Report run on 09/30/19 showed 10.17% employees (18) as non-compliant
- Investigated and completed reports for 13 DCM injuries
 - Animal Bite (3)
 - Fainting
 - Needlestick
 - o Knee Pain
 - Wrist Pain
 - Shoulder Strain
 - Thumb Pain (2)
 - o Fall
 - Hand Contusion (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 A	of Incidents Involving nimals
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 10/01/2019)

3 Total Reportable Incidents1 incident involving animals reported to NIH0 incidents involving animals reported to CDC

Biosafety Level	# of Incidents Involving Animals	
2	1	
3	0	

Notes on Incidents Involving Animals

One incident involving a Researcher injecting mice with adenocarcinoma cells transduced with retroviral vector expressing fluorescent/luminescent markers



MOUSE ESCAPES VS TOTAL INCIDENTS REPORTED TO NIH/CDC (AS OF 10/1/19)

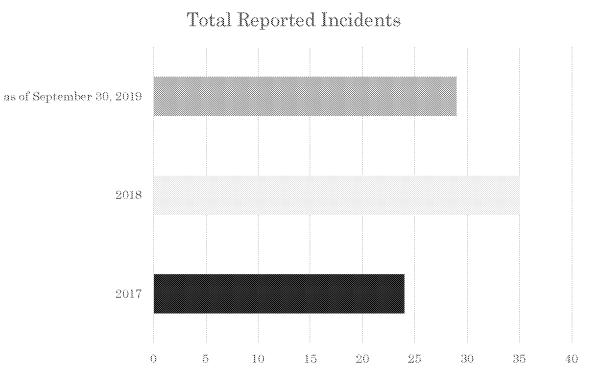
Year	Mouse Escapes	Reportable Incidents	% of total Incidents
2013	4	10	40%
2014	4	6	66%
2015	4	10	40%
2016	0	4	0%
2017	0	4	0%
2018	0	7	0%
2019	0	3	0%
TOTAL	12	44	29%

- 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

 DCM accounts for approximately 6.99% of the total claims reported to the University (as of 09/30/2019)





SERIOUS WORKPLACE INCIDENTS ONLY

• Lost time of six or more lost days is categorized as a serious workplace injury

- $\sim 2016 0$
- 2017 0 (2LT cases resulting in 6 lost time days)
- $\,\,$ 2018-1 (3 LT cases resulting in 12 lost time days)
- $\,\,$ 2019-0 (3 LT cases resulting in 10 lost time days as of 09/30/2019)



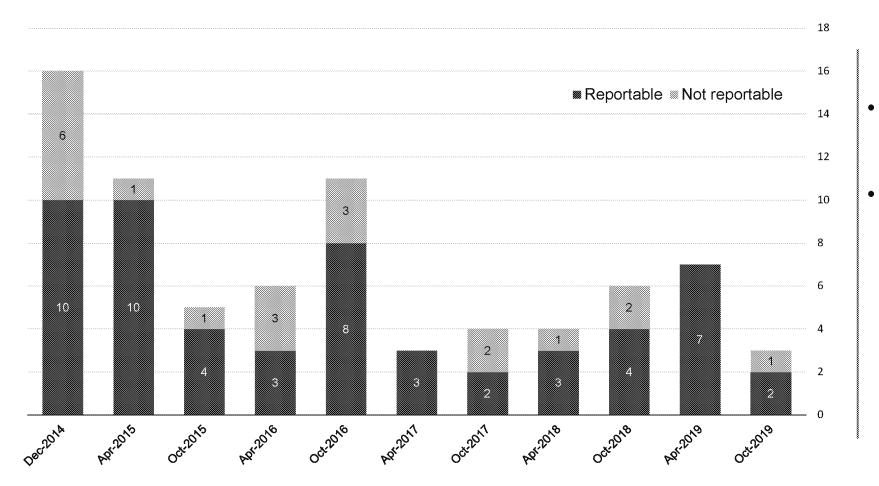
ANNUAL ANIMAL REVIEW

- 1,356 Active Researchers working with Animals on campus
- \odot 1,155 (85%) have completed the annual review (as of 09/30/2019)
- Two required further evaluation at the UEOHC.



Investigating and Reporting Animal Welfare Concerns

ACRs per Program Review Period



October 2019

- 2 reportable to OLAW
 - 1 repeat (humane endpoint)
- 5 "other" reports to IACUC
 - e.g. expired drugs

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!

- 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.
 - 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.
 - "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 speciesspecific 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).
 - 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.
- 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	e of Car	nine En	richment	Log

FOBRL	Canin	e Enr	ichmen	t Log		Ra	om: S	outh_				
December 2017	Mor	nday	Tues	day	Wedr	nesday	Thu	rsday	Fri	day	Exposure to Novel	
December 2017	TR	R	TR	R	TR	R	TR	R	TR	R	Stimuli?	
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Notes/ Animal IDs												
Week 2 (11-15)	1	Ι										
		•										
Notes/ Animal IDs												
Week 3 (18-22)	1	T				1				1		
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Notes/ Animal IDs		r				·		r		r		
Week 4 (25-29)			I									
Notes/ Animal IDs												
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Exposure to Novel Stin	nuli. Pers	ons unf	amiliar to th	ie dogs v	valk thro	ugh the r	oom for s	ocializati	on purpo	ses. Init	ial and date if completed.	
						-	Weekly	/ Toy Ro	tation			
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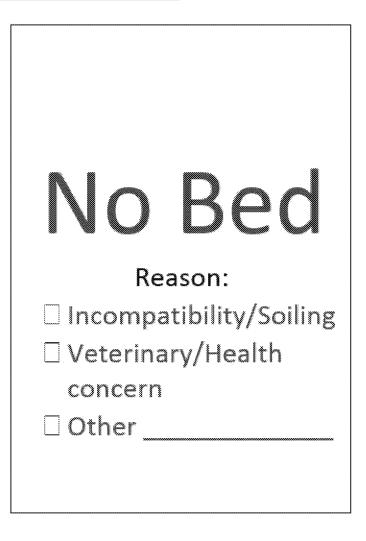
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Appendix 2: Example of Canine Exercise Log

Obtained by Rise for Animals. Uploaded 07/05/2020

Appendix 3: Example of Acceptable Toys (Not meant to be an all-inclusive list of approved toys)







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.
- Beaver, BV. Environmental Enrichment for Laboratory Animals. ILAR News 1989; 31(2):5-11.

Changes to Version Dated 08-23-17

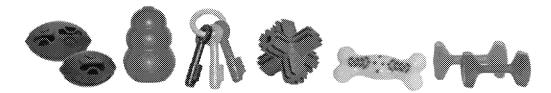
- Added that toys might not be rotated if it contraindicates research goals
- Updated examples of toys based on current availability
- Added exception for nursing kits with head caps to receive soft bedding due to needed warmth
- Updated examples of enrichment log and ferret toy signs

Example of Ferret Enrichment Log

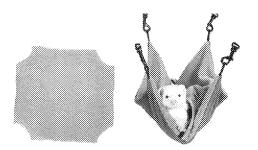
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Week 4 (23-27)											
Notes/ Animal IDs											
	be recorded . Ferrets th	, or initia at have l	al box if fu 1ad surge	ull time v ry shoul	vas given. d not have	List Fer playtime	for 5 da	ys post-o	p, after w	which limit	indicate in the notes section if animals to small toys only in playpen. enclosure.
Wype-alls may	be used i	1 place	of fleec	<u>e.</u>							
Lab will remove	any toys	deeme	d inappi	ropriate	aftersu	irgery a	nd indi	cate wh	en it is	okay to	replace them in pens.
Soft bedding/h	ammock	or tun	neling d	levice	are alwa	iys in ca	nges ur	less ind	dicated	by lab o	or after surgery
Pregnant/nursi	ng ferret	s will b	e provi	ded wi	th a nes	t box a	nd soft	t beddi	ng.		
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Example of Quarantine Ferret Enrichment Log

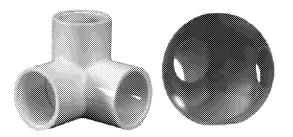
Ferrets must have any of the following toys while in quarantine:



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 _____

Page 4

Examples of Approved Ferret Toys





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 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).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

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		

Behaviors to watch for when social housing:

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.
 - <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.
- 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.

Changes to Version Dated 06-17-16

- 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

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Wk 1 (5-11)							L					<u> </u>					
Fruit/Veg																	
Notes/ Animal IDs									*****								
Wk 2 (12-18)																	
Fruit/Veg																	
Notes/ Animal IDs																	
Wk 3 (19-25)		1	1]									1			
Fruit/Veg																	
Notes/ Animal IDs																	
Wk 4 (3/26-4/1)												1					
Fruit/Veg		•			•												
Notes/ Animal IDs				1									1			1	
TR=Toy Rotatio	n. Init	ial whe	en toy	and/or	nestir	ig mate	erial is	chang	ed out	. (i.e. d	uringi	egular	cage	change	;)		
Fruit/Veg. Indic	cate fo	od iten	n giver	ı; alter	nate ty	pe of	fruit gi	ven we	ekly. J	DO NC	DT GIV	<u>e fru</u>	IT MC	RE TH	IAN O	NCE A	WE
NE=Nutritional	Enhar	ncemei	n t. Initi	ial box	for eac	ch day	given	, in ado	lition t	o fillin	g out l	Fruit/V	eg boz	ζ.			
*(Give NE3X/w	eek w	hen po	ssible,	but at	least	once w	eekly)										
H=Timothy Hay	. Initia	lboxf	or each	ı day g	given.	Hay sl	10uld l	oe give	en at le	ast on	ce per	week.					
**(Give hay dail	ly whe	n possi	ible, bu	ut at le	ast on	ce wee	kly)										
Example	ns of r	otatio	nalto			E.	ampl	os of a	ever-p	racar	atonr	ichme	nt	1	X	<u>`</u> }	
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Appendix 1: Example of Guinea Pig Enrichment Log



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.

UNC Environmental Enrichment Committee 05/01/2014, Revised 12/22/17

Page 1

- 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).
 - 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).
 - 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.
- National Research Council, Institute of Laboratory Animal Research, The Psychological Well-Being of Nonhuman Primates. Washington: National Academy Press, 1998.
- 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



Squirrel Monkey Nutritional Enhancement List

Fruits**	<u>Vegetables</u>
Apples*	Bell Peppers
Bananas	Carrots
Blueberries	Celery
Grapes	Green Beans (organic)
Kiwi	Sweet Potatoes
Melon	
Oranges	<u>Other</u>
Pears	Peanuts
Raisins	Popcorn
Strawberries	Marshmallows
Tomatoes	Yogurt
	Jell-O
**Any other item approved by veterinarian	Mealworms
prior to use**	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 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. 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.

- iv. **Sensory Enrichment:** Sensory Enrichment is a way to provide NHPs with opportunities to experience naturalistic stimulation of all five senses (Abee 2012).
 - 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.
 - 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.
 - 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:
 - 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.
 - 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).
 - 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.
- Stewart, KL and K. Bayne. Environmental Enrichment for Laboratory Animals. In: JD Reuter and MA Suckows (eds). Laboratory Animal Medicine and Management. IVIS, 2004.
- 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

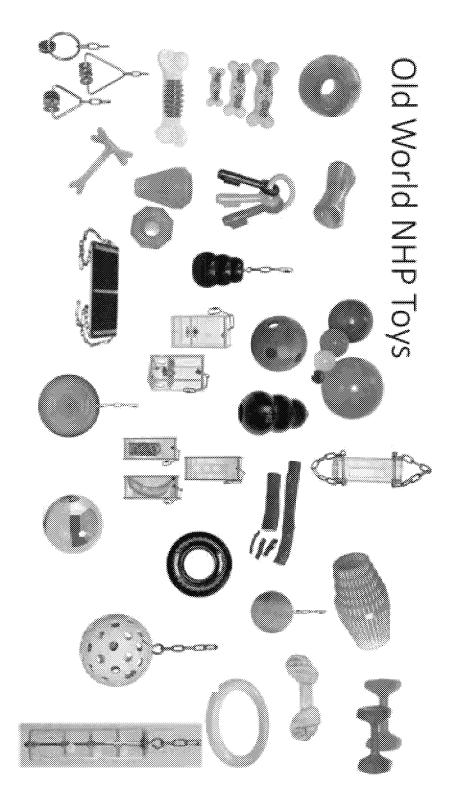
Changes to Version Dated 05-12-16

- 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.

Example of Primate Enrichment Log

		Old World	NHP Enrichment	t Log			
Bldg Ro	omPI	Anim	al Tech	Week Of	SEP	Reference? (Che	ck if Yes)
					(Check if Special Enri	chment Plan is in effect	. SEP Logis separat
Activity	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Fruit/Veg							
(Note type)*							
Occupational/							
Nutritional							
Enrichment							
(≥2x/wk; Note							
Туре)							
# Hrs TV							
(≥30min/wk)**							
Hrs Radio							
(≥30min/wk)**							
Toy Rotation							
(Initial)***							
Abnormal							
Behaviors? (Y/N,							
ID#)							
General							
Comments							
			Enhancement List			g same item more	e than 1x/wk.
			n of 30 mins per we				
			ld be present, one			should be rotatec	l weekly.
One hanging to	/ per animal shou	Id be present o	on the outside of t	he cage, rotated	weekly.	-	
]	
··· 🔊 🔊 📶 ····						Toy Rotation W	veek
· • • • • • • • • • • • • • • • • • • •	S S						
	Week2					.1	

All Animals Group Housed, unless an approved exception or veterinary concerns



UNC Environmental Enrichment Committee 06/20/2017



Old World NHP Nutritional Enhancement List

Fruits	Frozen mixed fruit – great for	Oranges*
Apples*	blending "smoothies" to hide	Pineapple
Apricots	meds in!	Plums
Bananas*	Grapes*	Pomegranates
Berries (blueberries, raspberries,	Kiwi	Raisins
strawberries)*	Lemons	Tangerines
Clementines	Limes	Tomatoes
Coconuts	Nectarines	Watermelon
Vegetables	Frozen vegetables	Radishes
Asparagus	Green peppers*	Red potatoes
Beets	Kale	Scallions
Broccoli	Leeks	Snow peas
Cabbage*	Lettuce	String beans
Carrots*	Lima beans	Squash
Cauliflower	Mushrooms	Turnips
Celery*	Pickles	Yams
Corn on the cob	Potatoes	
Cucumbers	Pumpkin	
Other		
Acacia Gum	Pasta	Rice cakes
Eggs (hard-boiled)	Peanuts*	Sugar Cane
Jellies (sugar free)	Peanut butter*	Sunflower Seeds
Mustard	Popcorn- may also be popped in	
Oatmeal	room*	
Sugary items – should be given	Sherbet (lemon, raspberry)	Ketchup
sparingly	Cereal (Cheerios, Fruit Loops, Kix,	Marshmallow Fluff
Lemonade	puffed wheat, Raisin Bran,	Marshmallows*
Pudding (vanilla)	shredded wheat, etc)	Marshmallow Peeps
Raisin Bread	Honey	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

DATE	ID(s)	NHP Training Log ACTIVITY	LENGTH	INITIAL
DAIL		ACTIVITY		INTER .
			OF TIME	
			1	

*Record any notes on back

Example of NHP Special Enrichment Log

NHP Special Enrichment Log

Animal ID:	PI:	Month/Year:
Special Enrichment Plan	n 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 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**: 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.
 - 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.
 - "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.
- 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 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. 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).
 - 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.
- 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.
- 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

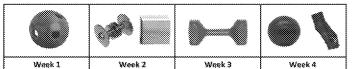
Example of Rabbit Enrichment Log

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Rabble Enrichment Log Room_Taylor_B22_

Tay Rotation (TR): Record toy restation as it accurs of least once a week (initial bax when tay 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.





A cage front toy should always be present (e.g. Triangle)

Weekly review by supervisor or designee: _____

Weekly Toy Rotation

Rabbit Nutritional Enhancement List

Apples*	Watercress	Papaya, fresh or dried
Pears*	Timothy Hay Cubes	Peanut, unsalted with or
Seedless Grapes	Veggie Chips (Bio-Serv)	without shell
Cabbage	Alfalfa, hay or cubes	Pineapple
Kale**	Arugula	Popcorn
Romaine	Banana, fresh or chips	Pumpkin
Squashes	Brussels Sprouts	Pumpkin Seeds
Bell Peppers (seeds	Corn	Raisins
removed)	Cranberry	Sunflower Seeds, with or
Carrots	Crumble Disk (Bio-Serv)	without shells
Celery	Escarole	Sweet Potato
Cucumbers	PrimaTreat (Bio-Serv)	Taro
Mint	FruitTopia treat (Bio-Serv)	Veggie Bites (Bio-Serv)
Parsley	Green Beans	Any other nutritional enhancement approved by
Cilantro	Kiwi	veterinarian prior to use
Basil	Mardi Gras Foraging Mix	
Endive	(Bio-Serv)	
Swiss chard	Nutra Block (Bio-Serv)	

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"

Page 5



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.

Options include, but are not limited to:

- 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.

Changes to Version Dated 11-30-17

- 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 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).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
 - "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 speciestypical 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

- 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.
- 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 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**: "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."
 - 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.

- 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.
- "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.
- 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

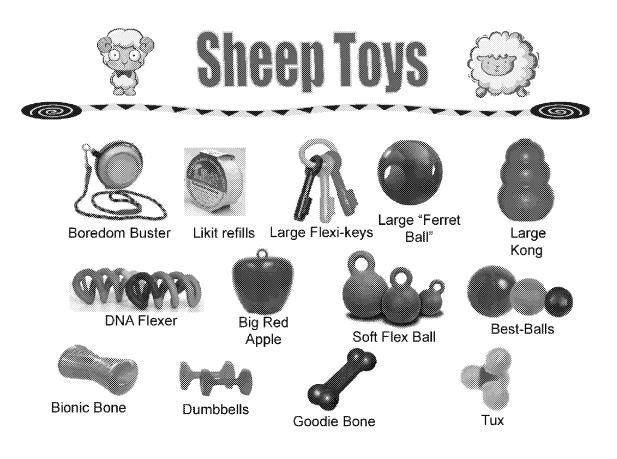
- Added two non-contact techniques of housing to allow for "visual, olfactory, and auditory cues from conspecifics" and "extra positive interaction with human caretakers"
- Added use of toy rotation every week
- Removed statement of sheep being neophobic, negating the need for a toy rotation

- 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"

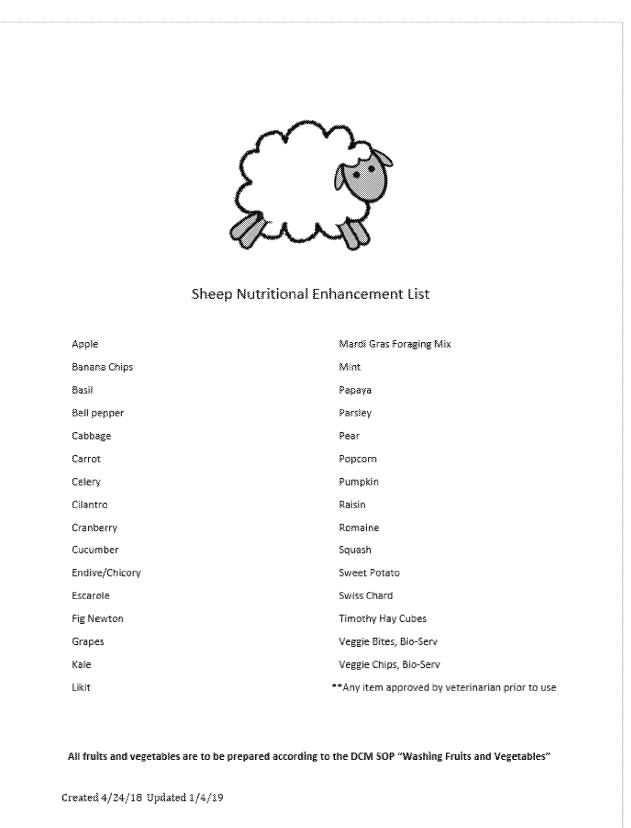
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Example Sheep Enrichment Log

Examples of Sheep Appropriate Toys



Sheep Nutritional Enhancement List



Page 6



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).
 - 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
 - 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
 - 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.

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) Federation of Animal Science Societies. The Guide for the Care and Use of Agricultural Animals in Research and Teaching. Third Edition, 2010.
- 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.

Appendices

- 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

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Notes/Animai Os					<u> </u>												<u> </u>			
Week 4		<u> </u>	<u> </u>		_	L	<u> </u>		ļ	<u> </u>	l	L	L	l	L	L	_	L	<u> </u>	<u> </u>
Treats Given:	ļ				ļ				ļ				ļ				ļ			
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ST= Scratch tim	e per v	wek. P	lease i	rcord	amoun	tofscr	atch ti	use bre	wided v	wekły –	and not	e anin	ual II)s	in the	Notes/.	Anima	I IDs fi	eld In	itial bo	ĸ
when completed.																· · · · · ·				
TR= Toy Rotatio	n Reco	ard toy	rotatio	u as it	occurs	once a	ı week.	(initia	l box w	hen tor	rotatio	m is c	amplete	ની						
WI≃ Walk time															l W in	the Ne	des/An	imal II)s field	and
initial box when (
R= Radio/CD mu	isie pe	r week	. Anin	als ar	e given	a min.	30min	per w	eek. (T	îme pe	r day es	n be r	ecorde	tor in	itial bo	x if ful	130 mi	n mas g	ziven o	a one
day.														3	·····					•
Treats Given: F	lease	note	any tr	eats g	iven li	n this	space.													1
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										100000										

Examples of Acceptable Toys



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).
 - 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:
 - 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]	Enrich	iment]	Log		Bidg		Be	rryhill		Roon	B:	\$B-:	12				
Sep-18		Monday			Tuesda	ł	W	ednesd	lay	-	Thursda	ıy		Friday	y Sa		Sun
3ep-10	TR	S	B	TR	s	R	TB	S	R	TR	S	B	TR	S	R	s	s
Week 1 (3-7)																	
Fruit/Veg		Pear						Carrots	3					Cookie	5		
Notes/ Animal IDs																	
Week 2 (10-14)																	
Fruit/Veg		Jell-O					Ve	ggie Cl	nips					Grapes	ù		
Notes/ Animal IDs																	
Week 3 (17-21)																	
Fruit/Veg		Carrots	3					Romain	8					Berries	;		
Notes/ Animal IDs																	
Week 4 (24-28)				1			1										
Fruit/Veg		Puddin	9					Carrots	\$					Apples	-		
Notes/ Animal IDs																	
Toy Rotation (TR): R	lecord to	y rotation	ias it oc	curs once	e a week	(initial)	oox when	toy rota	tion is	omplete	d)	******					*******
Radio/Music (R): An	imais an	e given 30	an nain	imum pe	r week. T	ime can	be recor	ded or in	nitial bo	axiif fu∐ t	ime was	given or	one day	r			
Socialization (S): If	a pig is h	oused sin	ngiy in th	ie room, p	provide 1	.5 minut	es of hur	nan soci	al Inter	action da	diy.						
***************************************	w 82	11	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			M	: #####		····				(γ^{a}	~~~~\	()	
		- Y							.					Yr	n	Y	
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Weekly Toy Rota	tion	We	ek1	We	ek 2	We	ek 3	We	ek 4								
A cage front toy (6			- A - A	
Heage none toy (c.5. 1110	n Bechar	(* (* 3485)		by mor		ато ос р	reserve.					Y		. *	\mathcal{N}	
Mirror panel prov	rided fo	r single p	oig in ro	om (Init	ial and i	date}_		A						~~			
Weekly review b	y supen	risor or d	lesigne	e:													

Examples of Acceptable Toys



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 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).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

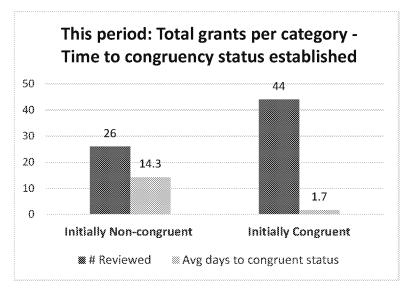
Grant Congruency

Total Congruency Reviews conducted

Oct 2017 - Oct 2019

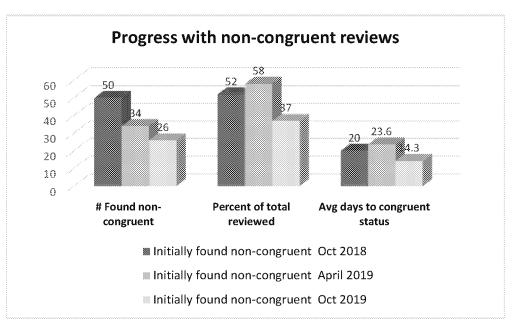
Oct 2017 April 2018 Oct 2018 April 2019 Oct 2019	
78 59 97 59 70	Congruency reviews conducted over time
	100 90 78
	80 70 59 59
	70 59 59 60 59
	50 40
	30 / /
	20 10
	0 /
	10 0 Oct 2017 April 2018 Oct 2018 April 2019 Oct 2019

	Initially Non- congruent	Initially Congruent	Total Resolved	Total Reviewed
# Reviewed	26	44	70	70
Avg days to congruent status	14.3	1.7		



1 droome of 1													
Program	Number												
review	found non-	Percent of	Days to										
period	congruent	total	congruent										
	16 of 40	40	16.8										
17-Oct	36 of 78	46	16.3										
	26 of 58	45	30										
18-Oct	50 of 97	52	20										
	34 of 59	58	23.6										
19-Oct	26 of 70	37	14.3										

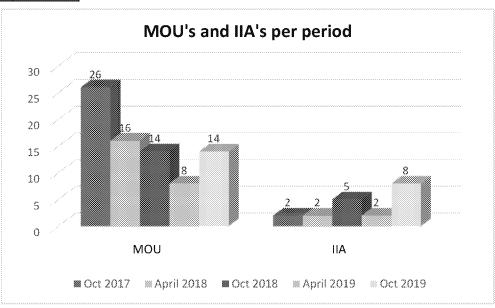
	Initially found	nitially found non-congruent							
	Oct 2018	April 2019	Oct 2019						
# Found									
non-	50	34	26						
congruent									
Percent of									
total	52	58	37						
reviewed									
Avg days to congruent status	20	23.6	14.3						



Percent of non congruent reviews over time

Periods Oct 2017 - Oct 2019

	Oct 2017	April 2018	Oct 2018	April 2019	Oct 2019
MOU	26	16	14	8	14
IIA	2	2	5	2	8



DCM/IACUC Meeting Summaries

General Updates

OLAW Semi-Annual Program Review Checklist/Assurance Statement

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 (<u>Policy</u>), section <u>IV.B.1.-2.</u>, 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 (<u>Guide</u>) 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 <u>IV.A.1.a.-i.</u>) 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: <u>olawdpe@mail.nih.gov</u>.

I. Semiannual Program Review Checklist ⁱ

Institutional Policies and Responsibilities

Date:

1.	An	nimal Care and Use Program NEW	A *	Μ	S	С	NA
	٠	Responsibility for animal well-being is assumed by all members of the program (<i>Guide</i> , $p \ 1$) [must]					
	٠	IO has authority to allocate needed resources (Guide, p 13)					
	٠	Resources necessary to manage program of veterinary care are provided (<i>Guide</i> , $p 14$) [must]					
	٠	Sufficient resources are available to manage the program, including training of personnel in accord with regulations and the <i>Guide</i> (<i>Guide</i> , <u>pp 11</u> , <u>15</u>)					
	•	Program needs are regularly communicated to IO by AV and/or IACUC (Guide, p 13)					
	٠	Responsibilities for daily animal care and facility management are assigned to specific individual(s) when a full-time veterinarian is not available on site (<i>Guide</i> , <u>p 14</u>) [must]					
	•	Inter-institutional collaborations are described in formal written agreements (<i>Guide</i> , <u>p</u> <u>15</u>)					
	•	Written agreements address responsibilities, animal ownership, and IACUC oversight (<i>Guide</i> , <u>p 15</u>)					
2.	Di	saster Planning and Emergency Preparedness NEW	A *	Μ	S	С	NA
	•	Disaster plans for each facility to include satellite locations are in place (<i>Guide</i> , <u>p 35</u> , <u>p 75</u>) [must]					
	۲	Plans include provisions for euthanasia (<i>Guide</i> , <u>p 35</u>) [must]					
	۲	Plans include triage plans to meet institutional and investigators' needs (<i>Guide</i> , <u>p 35</u>)					
	•	Plans define actions to prevent animal injury or death due to HVAC or other failures (<i>Guide</i> , <u>p 35</u>)					
ļ	٠	Plans describe preservation of critical or irreplaceable animals (Guide, p 35)					
	٠	Plans include essential personnel and their training (Guide, p 35)					
	•	Animal facility plans are approved by the institution and incorporated into overall response plan (<i>Guide</i> , <u>p 35</u>)					
	•	Law enforcement and emergency personnel are provided a copy and integration with overall plan is in place (<i>Guide</i> , <u>p</u> 35)					
3.	IA		\mathbf{A}^*	Μ	S	С	ΝΑ
	•	Meets as necessary to fulfill responsibilities (Guide, p 25) [must]					
	•	IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions (<i>Guide</i> , <u>p 26</u>) [must]					
	٠	Continuing IACUC oversight after initial protocol approval is in place (Guide, p 33)					
	٠	IACUC evaluates the effectiveness of training programs (Guide, $p 15$)					
4.	IA	CUC Protocol Review - Special Considerations	A *	м	S	С	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 (<i>Guide</i> , <u>p 27</u>)					
		For pilot studies, a system to communicate with the IACUC is in place (Guide, p 28)					
	٠	For genetically modified animals, enhanced monitoring and reporting is in place (<i>Guide</i> , <u>p 28</u>)					
	٠	Restraint devices are justified in the animal use protocols (Guide, p 29) [must]					
	٠	Alternatives to physical restraint are considered (Guide, p 29)					
	٠	Period of restraint is the minimum to meet scientific objectives (<i>Guide</i> , <u>p 29</u>)					
	٠	Training of animals to adapt to restraint is provided (Guide, p 29)					
	٠	Animals that fail to adapt are removed from study (Guide, p 29)					
	٠	Appropriate observation intervals of restrained animals are provided (<i>Guide</i> , <u>p 29</u>)					
	•	Veterinary care is provided if lesions or illness result from restraint (<i>Guide</i> , $p = 30$) [must]					

	 Submitted to IO every 6 months 					1
•	Semiannual report to the IO (PHS Policy, <u>IV.B.</u>)					
7. IA	CUC Records and Reporting Requirements ^{vi}	A *	М	S	С	N
	 Ongoing training/education (Guide, p 17) 					
	• Training on how to review protocols as well as evaluate the program (<i>Guide</i> , p 17)					
	(<i>Guide</i> , <u>p 17</u>)					
	 Training on how to inspect facilities and labs where animal use or housing occurs 					
	• Training on legislation, regulations, guidelines, and policies (<i>Guide</i> , <u>p 17</u>)					
•	• Formal orientation to institution's program (<i>Guide</i> , <u>p 17</u>)					
J. 1 A	CUC Training MEW All IACUC members should receive:	A	Μ	S	С	14
с та		A *	R.A	C	r	R.I
٠	Requests for exemptions from major survival surgical procedure restrictions are made to USDA/APHIS ^v (<i>Guide</i> , <u>p 30</u>) [must]					
	restraint, multiple survival surgery, food and fluid regulation, field investigations, agricultural animals) (<i>Guide</i> , <u>p 27-32</u>)					
٠	Policies are in place for special procedures (e.g., genetically modified animals,					
	activities (PHS Policy, <u>IV.B.</u>)					
٠	(PHS Policy, <u>IV.B.</u>) Procedures are in place for review and approval of significant changes to approved					
۲	Procedures are in place for review, approval, and suspension of animal activities ^{iv}					
٠	Reviews and investigates concerns about animal care and use at institution ⁱⁱⁱ (PHS Policy, <u>IV.B.</u>)					
•	$\underline{23}$ [must]					
•	IACUC organizationally reports to the Institutional Official (PHS Policy, <u>IV.A.1.b.</u>) Methods for reporting and investigating animal welfare concerns are in place (<i>Guide</i> , p					
٠	Conducts semiannual inspections of institutional animal facilities (PHS Policy, <u>IV.B.</u>)					
	(PHS Policy, <u>IV.B.</u>)					
٠	IACUC conducts semiannual evaluations of institutional animal care and use program					
•	are provided (<i>Guide</i> , $p \ 14$)					
	animal user (<i>Guide</i> , <u>p_24</u>) ⁱⁱ IACUC authority and resources for oversight and evaluation of institution's program					
٠	Members include a veterinarian, a scientist, a nonscientist, and a nonaffiliated non-lab					
	IACUC is comprised of at least 5 members, appointed by CEO (PHS Policy, <u>IV.A.3.</u>)					
5. IA	CUC Membership and Functions	A *	м	S	С	N
٠	Toe-clipping only used when no alternative, performed as eptically and with pain relief (<i>Guide</i> , p <u>75</u>)					
٠	Disposition plans are considered for species removed from the wild (<i>Guide</i> , <u>p 32</u>)					
	regulations applicable in study area (<i>Guide</i> , <u>p 32</u>)					
•	(<i>Guide</i> , <u>p 31</u>) Investigators conducting field studies know zoonotic diseases, safety issues, laws and					
٠	Non-pharmaceutical grade chemicals are described, justified, and approved by IACUC					
	procedures (<i>Guide</i> , <u>p 31</u>)					
•	Pharmaceutical grade chemicals are used , when available, for animal-related					
•	$\frac{31}{2}$ Daily written records are maintained for food/fluid restricted animals (<i>Guide</i> , <u>p 31</u>)					
•	Body weights for food/fluid restricted animals are recorded at least weekly (Guide, \underline{p}					
٠	Animals on food/fluid restriction are monitored to ensure nutritional needs are met $(Guide, p 31)$					
	species standards (<i>Guide</i> , <u>p 30</u>)					
٠	Multiple survival procedure justifications in non-regulated species conform to regulated					
٠	Major versus minor surgical procedures are evaluated on a case-by-case basis (<i>Guide</i> , p 30)					
-	(<i>Guide</i> , <u>p 30</u>)					
•	(<i>Guide</i> , <u>p 30</u>) Multiple surgical procedures on a single animal are justified and outcomes evaluated					
	Explanations of purpose and duration of restraint are provided to study personnel					

	Compiles						

1						
	and facility deficiencies)					
	Includes minority IACUC views					
	• Describes IACUC-approved departures from the <i>Guide</i> or PHS Policy and the					
	reasons for each departure ^{vii}					
	 Distinguishes significant from minor deficiencies 					
	 Includes a plan and schedule for correction for each deficiency identified^{viii} 					
•	Reports to OLAW (PHS Policy, <u>IV.F.</u>)					
	 Annual report to OLAW documents program changes, dates of the semiannual 					
	program reviews and facility inspections and includes any minority views					
	 Promptly advises OLAW of serious/ongoing Guide deviations or PHS Policy 					
	noncompliance (<u>NOT-OD-05-034</u>)					
	• 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}			/		
	 Annual report to USDA contains required information including all 					
	exceptions/exemptions					
	 Reporting mechanism to USDA is in place for IACUC-approved exceptions to the 					
	regulations and standards					
	 Reports are filed within 15 days for failures to adhere to timetable for correction of significant deficiencies 					
	funding agency					
	Records (PHS Policy, <u>IV.E.</u>)					
	• IACUC meeting minutes and semiannual reports to the IO are maintained for 3					
	years					
	 Records of IACUC reviews of animal activities include all required information^x 					
	• Records of IACUC reviews are maintained for 3 years after the completion of the					
	study					
0 1	Votorinary Caro (See also next section - Votorinary Caro)	A *	М	S	c	NA
	Veterinary Care (See also next section - Veterinary Care)	A	1.1	3		AFI
•	 An arrangement for veterinarian(s) with training or experience in lab animal medicine 					
	ia in plana including hadrup vatavingm, agusti					
	is in place including backup veterinary care ^{xi}					
	 Veterinary access to all animals is provided (Guide, p 14) [must] 					
	 Veterinary access to all animals is provided (<i>Guide</i>, <u>p 14</u>) [must] Direct or delegated authority is given to the veterinarian to oversee all aspects of 					
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	pre- and post-operative care, aseptic surgical techniques and euthanasia (<i>Guide</i> , <u>p</u> 17) ^{xiii}					
	 Research/testing methods that minimize numbers necessary to obtain valid results (PHS Policy, <u>IV.A.1.g.</u>) 					
	• Research/testing methods that minimize animal pain or distress (PHS Policy,					
	 <u>IV.A.1.g.</u>) Use of hazardous agents, including access to OSHA chemical hazard notices where 					
	 applicable (<i>Guide</i>, <u>p 20</u>) Animal care and use legislation (<i>Guide</i>, <u>p 17</u>) 					
	 Animal care and use legislation (<i>Guide</i>, <u>p 17</u>) IACUC function (<i>Guide</i>, <u>p 17</u>) 					
	• Ethics of animal use and Three R's (<i>Guide</i> , <u>p 17</u>)					
1						
10.	Occupational Health and Safety of Personnel	\mathbf{A}^*	Μ	S	С	NA
٠	Program is in place and is consistent with federal, state, and local regulations (<i>Guide</i> , <u>p 17</u>) [must]					
٠	Program covers all personnel who work in laboratory animal facilities (Guide, p 18)					
٠	Changing, washing, and showering facilities are available as appropriate (<i>Guide</i> , <u>p 19</u>)					
٠	Hazardous facilities are separated from other areas and identified as limited access (<i>Guide</i> , <u>p 19</u>)					
٠	Personnel training is provided based on risk (e.g., zoonoses, hazards, personal hygiene, special precautions, animal allergies) (<i>Guide</i> , <u>p 20</u>)					
٠	Personal hygiene procedures are in place (e.g., work clothing, eating/drinking/smoking policies) (<i>Guide</i> , <u>p 20</u>)					
٠	Procedures for use, storage, and disposal of hazardous biologic, chemical, and physical agents are in place (<i>Guide</i> , <u>p 21</u>)					
٠	Personal Protective Equipment for the work area is appropriate and available (<i>Guide</i> , <u>p</u> 21)					
٠	Program for medical evaluation and preventive medicine for personnel includes:					
	 Pre-employment evaluation including health history (<i>Guide</i>, <u>p 22</u>) 					
	 Immunizations as appropriate (e.g., rabies, tetanus) and tests as appropriate (Guide, p 22) 					
	 Zoonosis surveillance as appropriate (e.g., Q-fever, tularemia, Hantavirus, plague) (<i>Guide</i>, <u>p 23</u>) 					
	 Procedures for reporting and treating injuries, including accidents, bites, allergies, etc. (<i>Guide</i>, <u>p 23</u>) 					
	• Promotes early diagnosis of allergies including preexisting conditions (<i>Guide</i> , <u>p 22</u>)					
	 Considers confidentiality and other legal factors as required by federal, state and local regulations (<i>Guide</i>, <u>p 22</u>) [must] 					
	 If serum samples are collected, the purpose is consistent with federal and state laws (<i>Guide</i>, <u>p 22</u>) [must] 					
٠	Waste anesthetic gases are scavenged (<i>Guide</i> , <u>p 21</u>)					
٠	Hearing protection is provided in high noise areas (Guide, p 22)					
٠	Respiratory protection is available when performing airborne particulate work (<i>Guide</i> , <u>p 22</u>)					
٠	Special precautions for personnel who work with nonhuman primates, their tissues or body fluids include:					
	• Tuberculosis screening provided for all exposed personnel (<i>Guide</i> , <u>p 23</u>)					
	 Training and implementation of procedures for bites, scratches, or injuries associated with macaques (<i>Guide</i>, <u>p 23</u>) 					
	 PPE is provided including gloves, arm protection, face masks, face shields, or goggles (<i>Guide</i>, <u>p 21</u>) 					
	 Injuries associated with macaques are carefully evaluated and treatment implemented (<i>Guide</i>, <u>p 23</u>) 					
٠	Occupational safety and health of field studies is reviewed by OSH committee or office (<i>Guide</i> , <u>p 32</u>)					
11.	Personnel Security NEW	Δ*	м	S	С	NΔ

. .	Personner Security	A	141	Э	<u> </u>	INA
٠	Preventive measures in place include pre-employment screening, and physical and IT					
	security (<i>Guide</i> , <u>p 23</u>)					

12.	Investigating & Reporting Animal Welfare Concerns	A *	Μ	S	С	NA
٠	Methods for investigating and reporting animal welfare concerns are established (<i>Guide</i> , <u>p 23</u>) [must]					
٠	Reported concerns and corrective actions are documented (<i>Guide</i> , <u>p 24</u>)					
٠	Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (<i>Guide</i> , <u>p 24</u>)					
	 Includes multiple contacts (<i>Guide</i>, <u>p 24</u>) 					
	 Includes anonymity, whistle blower policy, nondiscrimination and reprisal protection (<i>Guide</i>, <u>p 24</u>) 					

* **A** = acceptable

M = minor deficiency

S = significant deficiency (is or may be a threat to animal health or safety)

 \mathbf{C} = change in program (PHS Policy <u>IV.A.1.a.-i.</u>) (include in semiannual report to IO and in annual report to OLAW)

NA = not applicable

NOTES:

Veterinary Care

Date:

1.	Cli	nical Care and Management NEW	\mathbf{A}^*	Μ	S	С	NA
	٠	Veterinary program offers high quality of care and ethical standards (<i>Guide</i> , <u>p 105</u>) [must]					
	•	Veterinarian provides guidance to all personnel to ensure appropriate husbandry, handling, treatment, anesthesia, analgesia, and euthanasia (<i>Guide</i> , <u>p 106</u>)					
	•	Veterinarian provides oversight to surgery and perioperative care (<i>Guide</i> , <u>p 106</u>)					
	٠	Veterinary care program is appropriate for program requirements (<i>Guide</i> , pp 113-114)					
	٠	Veterinarian(s) is familiar with species and use of animals and has access to medical and experimental treatment records (<i>Guide</i> , $p \ 114$)					
	٠	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(<i>Guide</i>, <u>p 114</u>) 					
		 Recurrent or significant health problems with the IACUC and documentation of treatments and outcomes (<i>Guide</i>, <u>p 114</u>) 					
		• Veterinary review and oversight of medical and animal use records (<i>Guide</i> , <u>p 115</u>)					
	٠	Procedures established for timely reporting of animal injury, illness, or disease (<i>Guide</i> , <u>p 114</u>) [must]					
	٠	Procedures established for veterinary assessment, treatment, or euthanasia (<i>Guide</i> , <u>p</u> <u>114</u>) [must]					
	٠	Veterinarian is authorized to treat, relieve pain, and/or euthanize (<i>Guide</i> , <u>p 114</u>) [must]					

2.	Animal Procurement and Transportation/Preventive Medicine	\mathbf{A}^*	М	S	С	ΝΑ
	• Procedures for lawful animal procurement are in place (<i>Guide</i> , <u>p 106</u>) [must]					
	• Sufficient facilities and expertise are confirmed prior to procurement (<i>Guide</i> , <u>p 106</u>)					
	Procurement is linked to IACUC review and approval (<i>Guide</i> , p 106)					
	• Random source dogs and cats are inspected for identification (<i>Guide</i> , p 106)					
	• Population status of wildlife species is considered prior to procurement (<i>Guide</i> , p 106)					
	• Appropriate records are maintained on animal acquisition (<i>Guide</i> , <u>p 106</u>)					
	• Animal vendors are evaluated to meet program needs and quality (<i>Guide</i> , p 106)					
	 Breeding colonies are based on need and managed to minimize numbers (<i>Guide</i>, <u>p</u> <u>107</u>) 					
	 Procedures for compliance with animal transportation regulations, including international requirements, are in place (<i>Guide</i>, <u>p 107</u>) [must] 					
	• Transportation is planned to ensure safety, security and minimize risk (<i>Guide</i> , <u>p 107</u>)					
	 Movement of animals is planned to minimize transit time and deliveries are planned to ensure receiving personnel are available (<i>Guide</i>, <u>pp 107-108</u>) 					
	• Appropriate loading and unloading facilities are available (<i>Guide</i> , p 109)					
	Environment at receiving site is appropriate (<i>Guide</i> , p 109)					
	 Policies in place on separation by species, source, and health status (<i>Guide</i>, <u>pp 109</u>, 111-112) 					
	• Procedures in place for quarantine to include zoonoses prevention (<i>Guide</i> , <u>p 110</u>)					
	 Quarantined animals from different shipments are handled separately or physically separated (<i>Guide</i>, p 110) 					
	• Procedures in place for stabilization/acclimation (<i>Guide</i> , pp 110-111)					
	• Policies in place for isolation of sick animals (<i>Guide</i> , p 112)					
	• Program is in place for surveillance, diagnosis, treatment and control of disease to include daily observation (<i>Guide</i> , p 112)					
	• Diagnostic resources are available for preventive health program (<i>Guide</i> , <u>p 112</u>)					
2		A *	м	S	c	NA
э.	Surgery	A	IAI	Э	L	INA
	• Surgical outcomes are assessed and corrective changes instituted (<i>Guide</i> , p 115)					
	 Researchers have appropriate training to ensure good technique (<i>Guide</i>, <u>p 115</u>) [must] 					
	Semiannual Checklist v3/8/2012					7

٠	Pre-surgical plans are developed and include veterinary input (e.g., location, supplies, anesthetic and analgesic use, peri-operative care, recordkeeping) (<i>Guide</i> , <u>p 116</u>)	
٠	Aseptic surgery is conducted in dedicated facilities or spaces, unless exception justified and IACUC approved (<i>Guide</i> , <u>p 116</u>)	
٠	Surgical procedures including laparoscopic procedures are categorized as major or minor (<i>Guide</i> , <u>pp 117-118</u>)	
٠	For nonsurvival surgery, the site is clipped, gloves are worn and instruments and area are clean (<i>Guide</i> , <u>p 118</u>)	
٠	Aseptic technique is followed for survival surgical procedures (Guide, pp 118-119)	
٠	Effective procedures for sterilizing instruments and monitoring expiration dates on sterile packs are in place (<i>Guide</i> , $p \ 119$)	
٠	Procedures for monitoring surgical anesthesia and analgesia are in place (<i>Guide</i> , <u>p</u> <u>119</u>)	
٠	For aquatic species, skin surfaces are kept moist during surgical procedures (<i>Guide</i> , <u>p</u> 119)	
•	Post-operative monitoring and care are provided by trained personnel and documented (e.g., thermoregulation, physiologic function, analgesia, infection, removal of skin closures) (<i>Guide</i> , pp 119-120)	

4.	Pain, Distress, Anesthesia and Analgesia	A *	Μ	S	С	NA
	 Guidelines for assessment and categorization of pain, distress and animal wellbeing are provided during training (<i>Guide</i>, <u>p 121</u>) 					
	 Selection of analgesics and anesthetics is based on professional veterinary judgment (<i>Guide</i>, 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 (<i>Guide</i>, <u>p 122</u>) [must] 					
	 Guidelines for selection and use of analgesics and anesthetics are in place and regularly reviewed and updated (<i>Guide</i>, <u>p 122</u>) 					
	 Special precautions for the use of paralytics are in place to ensure anesthesia^{xiv} (Guide, p 123) 					

5.	Euthanasia	A *	М	S	С	NA
	 Methods are consistent with AVMA Guidelines on Euthanasia unless approved by the IACUC (<i>Guide</i>, <u>p 123</u>) 					
	• Standardized methods are developed and approved by the veterinarian and IACUC that avoid distress and consider animal age and species (<i>Guide</i> , <u>pp 123-124</u>)					
	 Training is provided on appropriate methods for each species and considers psychological stress to personnel (<i>Guide</i>, <u>p 124</u>) 					
	 Procedures and training are in place to ensure death is confirmed (<i>Guide</i>, <u>p 124</u>) [must] 					

6.	Drug Storage and Control NEW	\mathbf{A}^*	Μ	S	С	NA
	 Program complies with federal regulations for human and veterinary drugs(Guide, p <u>115</u>) [must] 					
	 Drug records and storage procedures are reviewed during facility inspections (<i>Guide</i>, <u>115</u>) 	р				
	 Procedures are in place to ensure analgesics and anesthetics are used within expiration date (<i>Guide</i>, <u>p 122</u>) [must] 					
	 Anesthetics and analgesics are acquired, stored, and their use and disposal are recorded legally and safely (<i>Guide</i>, p 122) 					

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C = change in program (PHS Policy <u>IV.A.1.a.-i.</u>) (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:

b Lo	cation:				
0	animal areas separate from personnel areas (Guide, p 134)				
0	separation of species (Guide, p 111)				
0	separation by disease status (Guide, p 111)				
0	security and access control (<i>Guide</i> , p 151)				
	instruction:		i	i	
	corridors (<i>Guide</i> , <u>p 136</u>)				1
0	animal room doors (<i>Guide</i> , p 137)				
	exterior windows (<i>Guide</i> , <u>p 137</u>)				
0	floors (<i>Guide</i> , p 137)				
0					
0	drainage (<i>Guide</i> , p <u>138</u>)				
0	walls and ceilings (<i>Guide</i> , p 138)				
0	heating ventilation and air conditioning (Guide, p 139)				
0	power and lighting (<i>Guide</i> , <u>p 141</u>)				
0	noise control (<i>Guide</i> , <u>p 142</u>)				
0	vibration control (<i>Guide</i> , <u>p 142</u>)				
0	environmental monitoring (<i>Guide</i> , <u>p 143</u>)				
	om/Cage:				
0	temperature and humidity (<i>Guide</i> , <u>p 43</u>)				
0	ventilation and air quality (Guide, p 45)				-
0	illumination (<i>Guide</i> , <u>p 47</u>)				
0	noise and vibration (<i>Guide</i> , <u>p 49</u>)				
	imary Enclosure:				
	space meets physiologic, behavioral x^{v} , and social x^{vi} needs (<i>Guide</i> , <u>pp 51</u> , <u>55-63</u>)				1
	secure environment provided (<i>Guide</i> , $p \le 1$)				
0	durable, nontoxic materials in good repair and no risk of injury (<i>Guide</i> , $p 51$)				
0	flooring is safe and appropriate for species (<i>Guide</i> , $p = 51$)				
					 -
0	adequate bedding and structures for resting, sleeping, breeding (<i>Guide</i> , $p 52$)				
0	objective assessments of housing and management are made (<i>Guide</i> , <u>p 52</u>)				
0	procedures for routine husbandry are documented (<i>Guide</i> , <u>p 52</u>)				
0	socially housed animals can escape or hide to avoid aggression (Guide, p 55)				
0	cage height provides adequate clearance (Guide, p 56)				
0	animals express natural postures, can turn around, access food and water, and				
	rest away from urine and feces (<i>Guide</i> , <u>p 56</u>) [must]				
0	rationale ^{xvii} for <i>Guide</i> /USDA space exceptions approved by IACUC and based on				
	performance indices (<i>Guide</i> , <u>p 56</u>)				
0	dogs and cats allowed to exercise and provided human interaction (Guide, p 58)				
0	nonhuman primates are socially housed except for scientific, veterinary or				
	behavior reasons (<i>Guide</i> , pp. 58-59)				
0	single housing of nonhuman primates is for shortest duration possible (Guide, p			(
-	60)				
0	opportunities for release into larger enclosures is considered for single caged				
~	nonhuman primates (<i>Guide</i> , \underline{p} 60)				
0	agricultural animals are housed socially (<i>Guide</i> , <u>p 60</u>)				
0	food troughs and water devices for agricultural animals allow access for all				
0	animals (<i>Guide</i> , <u>p 60</u>)				
E ==		<u>.</u>	<u>.</u>	<u>.</u>	 <u>.</u>
EN	vironmental Enrichment, Behavioral and Social Management:	;]	 1
0	structures and resources promote species typical behavior (<i>Guide</i> , <u>pp 52-54</u>)				
0	novelty of enrichment is considered (<i>Guide</i> , p 53)				
0	species specific plans for housing including enrichment, behavior and activity are				
	developed and reviewed regularly by IACUC, researchers and veterinarian				

	(<i>Guide</i> , <u>pp 53</u> , <u>58</u> , <u>60</u> , <u>63</u>)			
0	animal care personnel receive training to identify abnormal animal behaviors			
	(<i>Guide</i> , <u>p 53</u>)			
0				
0				
0				
0				
0				
0				
	heltered or Outdoor Housing: (e.g., barns, corrals, pastures, islands)			
0				
0				
0				
0	animal acclimation (<i>Guide</i> , p 55)			
0	social compatibility (Guide, p 55)			
0	roundup/restraint procedures (<i>Guide</i> , <u>p 55</u>)			
	appropriate security (<i>Guide</i> , <u>p 55</u>)			
• N	laturalistic Environments:			
0	animals added /removed with consideration of effect on group (Guide, p 55)			
0	adequate food, fresh water, and shelter ensured (<i>Guide</i> , <u>p 55</u>)			
• F	ood:			
0	feeding schedule and procedures including caloric intake management (Guide, pp			
	<u>65-67</u>)			
0	contamination prevention (<i>Guide</i> , <u>p 65</u>)			
0	vendor quality control (<i>Guide</i> , <u>p 66</u>)			
0				
0				
0				
0				
• V	Vater:			
	ad libitum unless justified (<i>Guide</i> , pp 67-68)			
	QC procedures (<i>Guide</i> , <u>pp 67-68</u>)			
	Bedding and Nesting Materials:		iii	
	species appropriate (<i>Guide</i> , <u>pp 68-69</u>)			
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	anitation:			
	(
0				
0				
0	N			
0				
	Vaste Disposal:			
0				
0				
0				
	74) [must]			
0	animal carcasses (Guide, pp 73-74)			
• P	Pest Control:			
0				
0				
	(Guide, <u>p.74</u>)			
• E	mergency, Weekend, and Holiday Animal Care:	,		
0				
0	۲			
0	monitoring of backup systems (<i>Guide</i> , <u>p 143</u>)			
0	veterinary care available after hours, weekends, and holidays (Guide, pp 74,			
	114) [must]			
0				
0	a disuster plan that takes into account both personnel and animals (Guide, \underline{p} /3)			

Identification:
 cage/rack cards contain required information (Guide, p 75)
 genotype information included and standardized nomenclature used when applicable (<i>Guide</i>, p 75)
Recordkeeping:
 clinical records accessible and contain appropriate information (<i>Guide</i>, <u>pp 75-76</u>)
 records are provided when animals are transferred between institutions (<i>Guide</i>, <u>p</u> <u>75</u>)
Breeding Genetics and Nomenclature:
 appropriate genetic records, management and monitoring procedures (<i>Guide</i>, <u>p</u> <u>76</u>)
 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 (<i>Guide</i>, <u>p 141</u>)
 refuse storage is separate (<i>Guide</i>, <u>p 141</u>)
 carcass and animal tissue storage is separate, refrigerated below 7°C and cleanable (<i>Guide</i>, <u>p 141</u>)
Personnel:
 adequate space for locker rooms, administration and training (<i>Guide</i>, <u>p 135</u>)
 * A = acceptable M = minor deficiency S = significant deficiency (is or may be a threat to animal health or safety)

S = significant deficiency (is or may be a threat to animal health or safety) **C** = change in program (PHS Policy <u>IV.A.1.a.-i.</u>) (include in semiannual report to IO and in annual report to OLAW) **NA** = not applicable

NOTES:

Aquatic Animal Housing and Support Areas NEW

Date: Location:

	Location:		 	CI
	• animal areas separate from personnel areas (<i>Guide</i> , <u>p 134</u>)			
	o separation of species (<i>Guide</i> , p 111)			
	• separation by disease status (<i>Guide</i> , <u>p 111</u>)			
	o security and access control (<i>Guide</i> , p 151)			
٠	Construction:			
	o corridors (<i>Guide</i> , <u>p 136</u>)			
	o animal room doors (<i>Guide</i> , pp 137, 150)			
	• exterior windows (<i>Guide</i> , p 137)		 	
	o floors (<i>Guide</i> , <u>pp 137</u> , <u>150</u>)			
	o drainage (<i>Guide</i> , <u>pp 138</u> , <u>150</u>)		 	
	• walls and ceilings (<i>Guide</i> , <u>pp 138</u> , <u>150</u>)		 	
	 heating ventilation and air conditioning (<i>Guide</i>, <u>pp 139</u>, <u>150-151</u>) 		 	
	 power and lighting (<i>Guide</i>, pp 141, 150) 		 	
	 noise control (<i>Guide</i>, p 142) 		 	
•••••	 vibration control (<i>Guide</i>, p 142) 		 	
	• environmental monitoring (<i>Guide</i> , <u>p 143</u>)		 	
	Water Quality:		 	(
	 standards for acceptable quality are established (<i>Guide</i>, <u>p</u> 78) 		 	
	• chlorine, chloramines, chemical, and reactive bioproducts are removed or			
	neutralized prior to use in aquatic systems (Guide, pp78, 86) [must]		 	L
	Life Support System:		 	
	\circ water source is based on appropriate controls and research requirements (Guide,			
	<u>p 79)</u>			
	 biofilter is of sufficient size to process bioload (Guide, <u>p 80</u>) [must] 			
٠	Temperature, Humidity and Ventilation/Illumination/Noise and Vibration:		 	
	o temperature and humidity (<i>Guide</i> , <u>pp 43</u> , <u>80-81</u>)			
	• ventilation and air quality (<i>Guide</i> , pp 45, 81)			
	o illumination (<i>Guide</i> , <u>pp 47, 81</u>)		 	
	 noise and vibration (<i>Guide</i>, <u>pp 49</u>, <u>81</u>) 		 	
			 	I
•	Primary Enclosure:	1		
	 allows for normal physiological and behavioral needs (<i>Guide</i>, <u>p 82</u>) 		 	
	 allows social interaction for social species (<i>Guide</i>, <u>p 82</u>) 		 	
	 provides a balanced, stable environment (<i>Guide</i>, <u>p 82</u>) 		 	
	 provides appropriate water quality and monitoring (<i>Guide</i>, <u>p 82</u>) allows access to food and waste removal (<i>Guide</i>, <u>p 82</u>) 		 	
	 allows access to food and waste removal (<i>Guide</i>, p 82) restricts access and antropment (<i>Guide</i>, p 82) 		 	
	 restricts escape and entrapment (<i>Guide</i>, p.82) 		 	
	 allows undisturbed observation (<i>Guide</i>, <u>p 82</u>) 		 	
	 constructed of nontoxic materials (<i>Guide</i>, <u>p 82</u>) 		 	
	 prevents electrical hazards (<i>Guide</i>, <u>p 82</u>) 		 	
	• space needs of species are evaluated by IACUC during program evaluations and			
	facility inspections (<i>Guide</i> , <u>p 83</u>)		 	L
•	Environmental Enrichment, Social Housing, Behavioral and Social Manageme	nt:		
	 enrichment elicits appropriate behaviors and is safe (<i>Guide</i>, p.83) comi aquatic reatiles are provided torrectrial areas (<i>Guide</i>, p.83) 		 	
	 semi-aquatic reptiles are provided terrestrial areas (<i>Guide</i>, <u>p 83</u>) 		 	
	• handling is kept to a minimum and appropriate techniques are in place at facility			
	or protocol level (<i>Guide</i> , <u>p 84</u>)		 	
	• nets are cleaned, disinfected and managed to avoid contamination of systems			
	(Guide, p 84)		 	L
	Food:			

	84)	
	o delivery ensures access to all, minimizing aggression and nutrient loss (Guide, p	
	<u>84</u>)	
	• storage times are based on manufacturer recommendations or accepted practice	
	(<i>Guide</i> , <u>p 84</u>)	
	 a nutritionally complete diet is provided (<i>Guide</i>, <u>p 84</u>) 	
٠	Substrate:	
	o 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 (<i>Guide</i> , <u>p 86</u>)	
	 cleaning and disinfection of macroenvironment (Guide, p.86) 	
٠	Waste Disposal:	
	 procedures for collection (<i>Guide</i>, pp 73-74) 	
	• hazardous wastes are rendered safe before removal from facility (<i>Guide</i> , <u>pp 73-</u>	
	<u>74</u>) [must]	
	 animal carcasses (Guide, pp 73-74) 	
٠	Pest Control:	
	 regularly scheduled (Guide, p 74) 	
	o documented program including control of pests and insecticide use (<i>Guide</i> , p 74)	
٠	Emergency, Weekend, and Holiday Animal Care:	
	 care provided by qualified personnel every day (<i>Guide</i>, <u>pp 74</u>, <u>87</u>) 	
	 provision for accessible contact information (<i>Guide</i>, <u>pp 74</u>, <u>87</u>) 	
	• emergency response plans in place to address major system failures (<i>Guide</i> , <u>87</u>)	
	• veterinary care available after hours, weekends, and holidays (<i>Guide</i> , pp 74, 114)	
	[must]	
•	Identification:	
	o cage/tank cards contain required information (Guide, pp 75, 87)	
	o genotype information included and standardized nomenclature used when	
	applicable (<i>Guide</i> , pp 75, 87)	
	Recordkeeping:	
	• water quality parameters and frequency of testing recorded (<i>Guide</i> , <u>p 88</u>)	
	• records kept on feeding, nonexpired food supplies, live cultures (<i>Guide</i> , <u>p 88</u>)	
٠	Storage:	
	\circ adequate space for equipment, supplies, food, substrate and refuse (<i>Guide</i> , <u>p</u>	
	<u>141</u>)	
	 substrate protected from contamination (Guide, p 141) 	
	o food in vermin-free, temperature and humidity controlled area and protected	
	from contamination (<i>Guide</i> , <u>p 141</u>)	
	 refuse storage is separate (<i>Guide</i>, <u>p 141</u>) 	
	 carcass and animal tissue storage is separate, refrigerated below 7°C and 	
	cleanable (<i>Guide</i> , <u>p 141</u>)	
٠	Personnel:	
	o adequate space for locker rooms, administration and training (Guide, p 135)	
* 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 <u>IV.A.1.a.-i.</u>) (include in semiannual report to IO and in annual report to OLAW)
 NA = not applicable

NOTES:

Semiannual Checklist

v3/8/2012

14

Cagewash

Date: Location:

	A *	Μ	S	С	N/
Construction and Operation:					
 dedicated central area for sanitizing cages and equipment is provided (<i>Guide</i>, <u>143</u>) 	2				
o cage-washing equipment meets need (<i>Guide</i> , <u>p 143</u>)					
o doors, windows, floors, drainage, walls, ceilings (<i>Guide</i> , pp 136-138)					
o convenient to animal areas/waste disposal (<i>Guide</i> , p 143)					
 • ease of access (including door size) facilitates use (<i>Guide</i> , <u>p 143</u>)					
 • sufficient space for staging and maneuvering (<i>Guide</i> , <u>p 143</u>)					
 safety precautions/clothing/equipment used for waste disposal/prewash/acid wash ((<i>Guide</i>, <u>p 143</u>) 					
 traffic flow clean to dirty with no contamination of clean equipment by dirty equipment and appropriate air pressurization (<i>Guide</i>, <u>p 143</u>) 					
o insulation and/or sound attenuation present as needed (<i>Guide</i> , <u>p 143</u>)					
o utilities are appropriate (<i>Guide</i> , <u>p 143</u>)					
 • ventilation meets heat and humidity load (<i>Guide</i> , <u>p 143</u>)					
 safety features (e.g., SOPs, warning signs, eyewash stations) are in use (Guide p 143) 	Э,				
 functioning safety devices to prevent entrapment in washer/sterilizers (<i>Guide</i>, <u>143</u>) 	p				
o cage wash temperatures are monitored and records are available (Guide, p 73))				
 o appropriate clean cage storage (<i>Guide</i> , <u>p 141</u>)					

= acceptable A \mathbf{M} = minor deficiency

 S = significant deficiency (is or may be a threat to animal health or safety)
 C = change in program (PHS Policy <u>IV.A.1.a.-i.</u>) (include in semiannual report to IO and in annual report to OLAW) **NA** = not applicable

NOTES:

Special Facilities: Aseptic Surgery

Date: Location:

	A *	Μ	S	С	Ν
General Considerations:					
 location minimizes traffic/contamination (Guide, p 144) 					
 functional components (surgical support, animal preparation, surgeon scrub, operating room, postoperative recovery) are designed and separated (physically or otherwise) (<i>Guide</i>, <u>p 144</u>) 	,				
 appropriate drug storage, control, expiration date monitoring (<i>Guide</i>, <u>pp 115</u>, <u>122</u>) 					
 safe sharps disposal system (Guide, <u>p 74</u>) 					
 adequate records of anesthesia and perioperative care (Guide, p 122) 					
 aseptic procedures in use for all survival surgery (Guide, pp 118-119) 					
Operating Room:					
 effective contamination control procedures (Guide, p 144) 					
 effective cleaning procedures/dedicated tools (Guide, p 145) 					
 interior surfaces smooth and impervious to moisture (<i>Guide</i>, <u>p 145</u>) 					
 HVAC system meets Guide requirements (Guide, p 145) 					
 lighting safe and appropriate (<i>Guide</i>, <u>p 145</u>) 					
 outlets safe and appropriate (Guide, p 145) 					
 scavenging of anesthetic gases implemented (<i>Guide</i>, <u>p 145</u>) 					
Surgical Support:					
• facility for washing, sterilizing, storing instruments and supplies (<i>Guide</i> , <u>p 145</u>)					
 autoclave monitoring procedures are implemented (<i>Guide</i>, <u>pp 119</u>, <u>145</u>) 					
 storage of autoclaved materials maintains sterility (Guide, p 145) 					
 cold sterilization procedures are appropriate (Guide, p 119) 					
Animal Preparation: contains large sink to facilitate cleaning of animal and operative site (<i>Guide</i> , <u>p 145</u>)					
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 (<i>Guide</i> , <u>p 145</u>)					
Dressing Area: place for personnel to change (<i>Guide</i> , p 145)					

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 <u>IV.A.1.a.-i.</u>) (include in semiannual report to IO and in annual report to OLAW) **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:

 General Considerations:	<i>m</i>	Μ	S	U	N/
 labs used to house animals only when scientifically required and limited to 					
minimum period necessary (<i>Guide</i> , <u>p 134</u>)					
 o drug storage, control, and expiration dates (<i>Guide</i> , <u>pp 115</u> , <u>122</u>)					
o sharps disposal (<i>Guide</i> , <u>p 74</u>)					
 o anesthetic monitoring (<i>Guide</i> , p 120)					
\circ scavenging of anesthetic gases (<i>Guide</i> , <u>p 21</u>)		•			-
• safety features (e.g., SOPs, safety signs, eyewash stations, secure gas cylinders)					
are in place (Guide, p 19)					
 o carcass disposal (<i>Guide</i> , <u>pp 73-74</u>)					
Additional Concerns for Survival Surgery: (rodent and minor procedures only)					
 • rodent survival surgery clean and uncluttered, not used for anything else during					
surgery (<i>Guide</i> , <u>p 144</u>)					
• records of peri-operative care (<i>Guide</i> , <u>p 120</u>)					
o aseptic procedures (<i>Guide</i> , pp 118-119)					
• autoclave monitoring procedures (<i>Guide</i> , pp 119, 145)					
• storage of autoclaved materials (<i>Guide</i> , <u>p 145</u>)					
• cold sterilization procedures are appropriate (<i>Guide</i> , <u>p 119</u>)					
Imaging/Whole Body Irradiation: NEW					
 location of resource limits contamination risk (<i>Guide</i>, p 147) 					
\circ appropriate transportation methods are in place (<i>Guide</i> , <u>p 147</u>)					
 gas anesthesia provision, scavenging and monitoring are appropriate (<i>Guide</i>, <u>p</u> 147) 					
 appropriate sensors and ventilation are provided for cryogen gases (<i>Guide</i>, <u>p</u> <u>147</u>) [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 (<i>Guide</i> , <u>p 148</u>) [must]					
Behavioral Studies: NEW					
 • facility minimizes airborne transmission of noise and ground-borne transmission					
of vibration (<i>Guide</i> , <u>p 149</u>)					
 • floor coverings reduce sound transmission (<i>Guide</i> , <u>p 149</u>)					
• testing equipment allows for surface disinfection (<i>Guide</i> , <u>p 150</u>)					
 o components that cannot be cleaned are not in ready contact with animals and					
kept covered when not in use (Guide, p 150)					
\circ housing areas are contiguous with testing areas when appropriate (<i>Guide</i> , p 150)					

M = minor deficiency

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C = change in program (PHS Policy <u>IV.A.1.a.-i.</u>) (include in semiannual report to IO and in annual report to OLAW) **NA** = not applicable

NOTES:

III. Semiannual Program Review and Facility Inspection Report

Date:

Members in Attendance:

Deficiency Category*	\checkmark	Location	Deficiency and Plan for Correction	Responsible Party	Correction Schedule and Interim Status	Date Complete
 * A = accept M = minor S = signific C = change NA = not a ✓ Check if re 	defi ant in ppli	ciency deficiency (is program (PHS cable	or may be a threat to animal health or safety) Policy <u>IV.A.1.ai.</u>) (include in semiannual report to IO and in annual report	to OLAW)		

IV. Endnotes

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]

 v^{ii} 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..."

 x^{i} 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.