

Memorandum

Wesley G Byerly

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To: Dr. Wesley Byerly
Associate Vice President for Research Integrity and Regulatory
Affairs, and Institutional Official

From: Institutional Animal Care and Use Committee

Subject: Semiannual Report of the Program Review and Facility Inspection

Date: November 30, 2020

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

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

The IACUC membership is currently at twelve. Since the last report a new alternate unaffiliated member has been added to the roster, acting as an alternate for [REDACTED]

During the previous cycle (as noted on the May 30, 2020 report) there was a temporary change in our program. Due to the COVID-19 pandemic, the IACUC was unable to complete the facility inspections during the month of April 2020 as required by the regulations. The IO requested and was granted a waiver of this requirement from OLAW, with the expectation that the postponed inspections would be conducted as soon as the IACUC could safely do so. Those facility inspections were conducted between August 26, 2020 and Sept. 22, 2020, and an updated report reflecting those findings was provided to the IO on November 2, 2020.

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:

- 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]

The Departures from the Guide, PHS Policy and the AWA are listed in Attachment I, as Approved Exceptions – October 2020. Reasons for each departure are listed.

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

Animal Care and Use Program Review Date(s): **October 1-30, 2020**

Select A or B:

- 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*]

The Program Evaluation Report (Attachment II) indicates that the IACUC reviewed all of the listed areas and found them to be acceptable.

III. Deficiencies in the Institution's Animal Facility

Animal Facility Inspection Date(s): **October 1-30, 2020**

Select A or B:

- A. There were no deficiencies in the animal facility 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*]

Please see the attached Facilities Inspection Report (Attachment III) for specific findings, how each individual finding was characterized and the plan and schedule for correction.

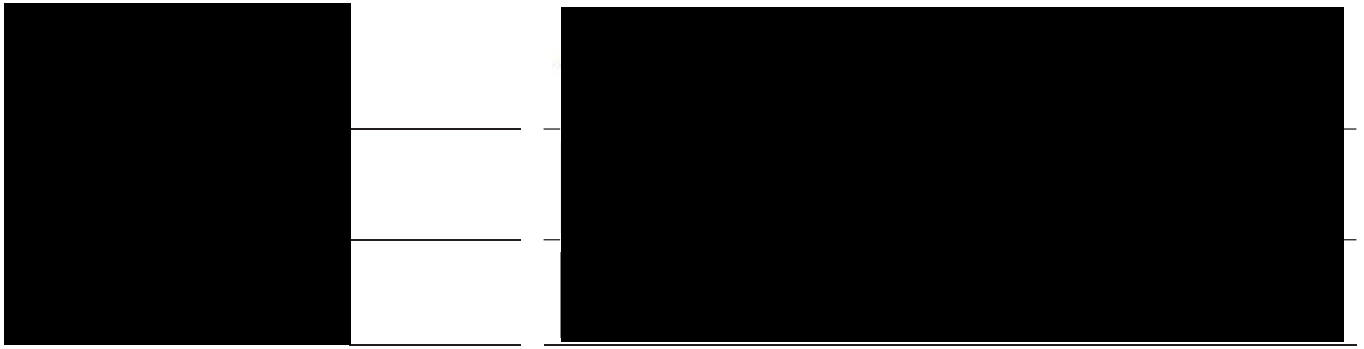
The IACUC would like to highlight an area of concern identified during the semiannual inspection cycle. Ceilings throughout the ANSCI housing areas [REDACTED] are showing signs of age and disintegration. In many areas insulation and other ceiling materials are falling, and ANSCI staff must inspect and remove fallen material on a regular basis. Although efforts have been made to repair and replace ceiling materials as needed to protect animal welfare, a more comprehensive engineering evaluation of all of these areas is warranted.

The IACUC determined that ANSCI must provide (no later than November 30, 2020) a comprehensive plan to address concerns with ceiling materials across the ANSCI units. This plan should include specifics, including project objectives, an expected timeframe, prioritization, locations, and materials.

IV. Minority Views

Select A or B:

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



Protocol #	Dept. Code/PI	Title	Expiration date	Exceptions	Species	Summary
[REDACTED]	[REDACTED]	ACS Training Protocol for Mice, Rats and Zebrafish	10/30/2020	None	Rats, Mice, Fish	A teaching protocol designed to cover activities associated with Animal Care Services' efforts to train animal users in a variety of techniques and procedures in the most common laboratory species: mice, rats and zebrafish. Procedures covered in this protocol include basic animal handling and restraint, injections, blood sampling, analgesia and euthanasia.
[REDACTED]	[REDACTED]	Rodent Sentinel Program	5/16/2021	Soiled bedding mixed with clean bedding (Soiled bedding facilitates transmission of pathogens to sentinel animals)	Rats, Mice	A protocol designed to cover activities related to the sentinel program to provide health surveillance for mouse and rat colonies.
[REDACTED]	[REDACTED]	ACS Animal Holding Protocol for Laboratory Animals	5/28/2021	None	All lab animal species	A holding protocol implemented when other existing research/teaching protocols involving laboratory animal species lapses or expires, in order to ensure that animals will be covered continuously by an active approved protocol. No research or teaching procedures are conducted under the holding protocol.
[REDACTED]	[REDACTED]	Treatment of Cancers and Autoimmunity Diseases in Mice	7/9/2020	Use of Non-Pharma compounds (novel recombinant protein therapies), Multiple species housing (If animals are housed in PBB in a BSL2 room due to space constraints), food provided at cage floor (weakened animals EAE and GVHD models), Induction of EAE & GVHD models without the benefit of analgesia (score	Mice (wild type, knockouts)	The investigator proposes a series of experiments designed to explore how the recombinant IL-7/HGFβ and IL-7/HGFα proteins can be combined with stem cell therapy to support T-cell development. Understanding how these factors contribute to T-cell generation may lead to therapies for the treatment of cancer and autoimmune disease. The protocol covers a wide variety of procedures and complex animal models that he will leverage to investigate novel therapies
[REDACTED]	[REDACTED]	Investigating the Effect of Cheese, Starter Culture and Probiotic Supplementation on Inflammatory Bowel Disease and Gut Health in a Mouse Model	11/13/2021	Use of Non-Pharma compounds (pharma grade not available), Single housing (necessary component of experimental design), Withholding analgesics in the IBD model (analgesics have a confounding effect), 12 hour food/water deprivation (necessary component of experimental design to prepare the animal for FITC dextran gut	Mice	The investigator proposes a series of experiments to investigate the effect of probiotics and cheese cultures on the development and amelioration of inflammatory bowel disease (IBD) in a mouse model.

Protocol #	Dept. Code/PI	Title	Expiration date	Exceptions	Species	Summary
[REDACTED]	[REDACTED]	Promoting Broiler Growth and Reducing the Colonization of Salmonella enteritidis in Chickens Using Probiotics	12/5/2019	None	Chickens	The PI's objective is to determine if probiotics could serve as a growth promoter in chicken and reduce Salmonella enteritidis colonization in birds.
[REDACTED]	[REDACTED]	Use of Ultrasound Technology to Detect and Reduce Intramammary Infections in Heifers During the Pre-partum Period	1/23/2020	None	Cows	The work proposed in this protocol will further the goal of validating the use of ultrasound for detection of mastitis and determining the applicability for using ultrasound technology to improve mastitis treatment and reduce antibiotic use.
[REDACTED]	[REDACTED]	Effects of Probiotics in Sheep	3/20/2022	Individual housing social species (necessary element of experimental design)	Sheep	A protocol to evaluate the effectiveness of supplemental probiotics in stimulating growth, improving feed efficiency and enhancing body condition in lambs.
[REDACTED]	[REDACTED]	Measuring Growth in Beef Cattle (ANSC 3313/5613)	8/20/2022	None	Cows	A teaching protocol describing activities associated with ANSC 3313/5613: Growth Physiology and Metabolism of Domestic Animals. Beef cattle are used as a hands on model to demonstrate methods to assess growth.
[REDACTED]	[REDACTED]	Horse Practicum and Community Riding	2/21/2020	None	Horses	A teaching protocol designed to cover activities associated with the horse riding instruction practicums conducted for students and community members. All procedures are consistent with those found in a well run riding stable.

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[REDACTED]	[REDACTED]	Laboratory Animal Science-ANSC 3272	11/1/2019	None	Rats	A teaching protocol designed to teach undergraduates hands-on skills in rodent handling, blood sampling procedures, minor survival surgery, suturing, use of anesthetics and analgesics, aseptic surgery, and other key skills.
[REDACTED]	[REDACTED]	Horse Laboratories and Extension Outreach	8/26/2021	None	Horses	An overarching teaching/outreach protocol designed to provide hands-on instruction in basic horsemanship, including care, husbandry, handling, training and preventative medicine. Formal courses and informal workshops will be held utilizing the standing horse herd at the University under
[REDACTED]	[REDACTED]	Equine Teaching-S Reed	10/11/2021	None	Horses	A protocol using horses to demonstrate various aspects of exercise physiology. Horses will be used in teaching endeavors, as well as in a small research project designed to investigate the effect of chukker length on exercising horses.
[REDACTED]	[REDACTED]	Satellite Cell Isolation from Sheep Muscle	2/24/2022	None	Sheep	A tissue harvest protocol in which satellite cells are harvested from different muscle groups from healthy sheep. The cells will be isolated and cultured to test the effects of various growth factors and cytokines on sheep muscle cell differentiation and proliferation.
[REDACTED]	[REDACTED]	Use of Companion Animals in Teaching ANSC 1676/SAAS276	1/29/2020	None	Birds, small mammals, dogs, cats, fish, amphibians, farm animals,	A teaching protocol designed to provide instruction in the care and husbandry of companion animal species. All animals are privately owned and students will have opportunities to touch/handle some species, but not all.
[REDACTED]	[REDACTED]	Use of Domestic Farm Animals in Animal Science Teaching	1/14/2022	None	Horses, Poultry, Beef Cattle, Dairy Cattle, Sheep, pigs	Overarching teaching protocol for introductory Animal Science and Animal Behavior courses. Covers all agricultural species maintained at UCONN. In the Intro to ANSCI course, undergrads will be instructed in basic care, husbandry, handling, restraint, basic behavior training and preparation for
[REDACTED]	[REDACTED]	Principles of Animal Nutrition (ANSC 1111/SAAS 113), Advanced Animal Nutrition (ANSC 4313/5614), Independent Study	8/26/2022	None	Horses, Poultry, Beef Cattle, Dairy Cattle, Sheep, Pigs	This is a teaching protocol describing the use of livestock animals in an animal nutrition laboratory. The instructor will teach students how to evaluate animals using body condition scoring, and sampling of rumen fluid will be performed on the fistulated dairy cow.
[REDACTED]	[REDACTED]	Identify and Target Pig CD163 Transcription Regulatory Signaling Pathways to Prevent the Infection of PRRSV	3/16/2020	None	Pigs	The project will study pig immune cells-porcine alveolar macrophages and peripheral blood mononuclear cells that are specifically targeted and/or destroyed by Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) to gain an understanding how a key receptor protein responsible for mediating

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[REDACTED]	[REDACTED]	Generation of Naïve-State Induced Pluripotent Stem Cells Using Drug-Inducible Reprogramming System	4/16/2021	Non-pharma grade compounds (pharma grade not available)	Mice (SCID), cows	The primary objective is to improve the pluripotency of porcine/bovine induced pluripotent stem cells by manipulating various reprogramming factors through the use of viral vectors. The pluripotency of the cells will be tested in mice via the induction of teratomas after cell injection.
[REDACTED]	[REDACTED]	Side Effects of Intramuscular Injection of Plant-derived Antimicrobials and Caprylic Acid	12/26/2021	Non-pharma grade compounds (novel compounds being evaluated are not pharma grade), wet food at cage floor level (supportive measure for experimental animals)	Mice	A research protocol designed to evaluate the side effects associated with IM injection of various plant derived antimicrobials. The side effects of these compounds are being evaluated in a mouse model for potential therapeutic use in cattle to treat Mycoplasma bovis.
[REDACTED]	[REDACTED]	Investigating the Effect of Trans-cinnamaldehyde (TC), Carvacrol (CV), Sodium Selenite, Baicalin, Sodium Picolinate and Lactic	3/14/2020	Non-pharma grade compounds (novel compounds not available in pharma grade)	Mice	The PI's previous work concluded that plant molecules Carvacrol and Trans-cinnamaldehyde can reduce the toxin production of cytotoxicity of C. difficile in vitro. The PI will be conducting in vivo studies in a mouse model to validate the results.
[REDACTED]	[REDACTED]	Investigating the Effect of Selenium and Rutin on Enterohemorrhagic E. coli 0157:H7	7/26/2020	12 hour fasting, Non-Pharma compounds, single housing	Mice	A study designed to provide proof of concept that Se and RT can prevent EHEC colonization and associated infection in mice.
[REDACTED]	[REDACTED]	Reducing the Colonization of Salmonella Enteritidis (SE)/ Salmonella Heidelberg (SH) in Chickens with beta-resorcylyate (BR),	2/25/2022	Non-pharma grade compounds (novel compounds not available in pharma grade)	Chickens	The investigator seeks to determine whether natural antimicrobials are effective in reducing the colonization of Salmonella Enteritidis (SE) and Salmonella Heidelberg (SH) in the digestive tract of chickens. SE and SH are significant food borne pathogens in the US and poultry meat and eggs are the
[REDACTED]	[REDACTED]	Use of Poultry in Teaching	1/5/2020	None	Chickens	A teaching protocol designed to provide hands on instruction in poultry handling and husbandry, including growing of laying and broiler varieties. All procedures are consistent with those found in a well-run poultry farming operation.
[REDACTED]	[REDACTED]	Animal Science Holding Protocol	8/26/2021	None	All ag animal species	A holding protocol implemented when other existing research/teaching protocols involving agricultural species lapses or expires, in order to ensure that animals will be covered continuously by an active approved protocol. No research or teaching procedures may be continued when animals are shifted to this
[REDACTED]	[REDACTED]	UCONN Poultry Unit General Husbandry	12/9/2021	None	Chickens	A general husbandry protocol describing the day-to-day care and management of the animals housed in the Animal Science Poultry Unit.

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[REDACTED]	[REDACTED]	UCONN Beef Unit General Husbandry	1/24/2022	None	Beef cows	A general husbandry protocol describing the day-to-day care and management of the animals housed in the Animal Science Beef Unit.
[REDACTED]	[REDACTED]	UCONN Swine Unit General Husbandry	3/28/2022	None	Pigs	A general husbandry protocol describing the day-to-day care and management of the animals housed in the Animal Science Swine Unit.
[REDACTED]	[REDACTED]	UCONN Dairy Unit General Husbandry	4/18/2022	Subset of free stalls are smaller than the Ag Guide recommendation.	Dairy cows	A general husbandry protocol describing the day-to-day care and management of the animals housed in the Animal Science Dairy Unit.
[REDACTED]	[REDACTED]	UCONN Sheep Unit General Husbandry	5/15/2022	None	Sheep	A general husbandry protocol describing the day-to-day care and management of the animals housed in the Animal Science Sheep Unit.
[REDACTED]	[REDACTED]	UConn Horse Unit General Husbandry Protocol	5/29/2022	Subset of stalls do not strictly meet the current "Guide" recommendations, which states that box stalls should be a min. of 12'X12" and tie stalls a minimum of 5'X12'; all horses are housed in stalls in	Horses	A general husbandry protocol describing the day-to-day care and management of the animals housed in the Animal Science Horse Unit.
[REDACTED]	[REDACTED]	UConn Polo Practicum	9/16/2022	None	Horses	This protocol covers the activities associated with the polo program here at UCONN.
[REDACTED]	[REDACTED]	Combined Effects of Ocean Warming, Acidification and Hypoxia on Coastal Marine Fish	11/1/2020	No environmental enrichment at the tank level. Pelagic fish require open spaces to school and swim and enrichment such as PVC pipes could obstruct their free swimming. A sandy substrate is provided, as these	Atlantic silverside, Inland silverside, Sand lance	A set of experiments designed to better understand the sensitivity of coastal marine fish to the effects of low pH, low oxygen and rising temperatures associated with global climate change.
[REDACTED]	[REDACTED]	Evaluating the Impacts of Human and Climate Disturbance on Mercury Dynamics and Bioaccumulation in Benthic and Pelagic	8/14/2020	None	Fish (Menidia menidia, Menidia berylina, Fundulus heteroclitu	A field study/field harvest protocol, fish will be collected for tissue analysis in order to investigate the interactive effects of changes in temperature and river flow on the levels/fate of MeHg in the ecosystem of the Hudson River.

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[REDACTED]	[REDACTED]	Reciprocal Genetics of Recently-evolved Vertebrate Immunity and Peritoneal Helminth Counter-adaption	6/11/2021	Animals held in satellite facility (mobile lab) for >12 hrs.	Fish (various species)	A protocol designed to identify the genetic and immunological basis of recently-evolved resistance to helminth parasites in fish species from different areas.
[REDACTED]	[REDACTED]	Long-term Replicated Experimental Evolution in Wild Populations of Stickleback	4/4/2022	None	Fish (stickleback)	A protocol describing activities that will leverage restocking opportunities in Alaskan lakes to observe and characterize evolution in wild populations of stickleback that have been reintroduced into these areas. All of the fish will be caught and euthanised immediately upon capture for tissue harvest.
[REDACTED]	[REDACTED]	Developing Novel Methods for Estimating Co-evolutionary Processes Using Cestodes and their Shark and Ray Hosts	5/22/2021	None	Elasomobranchs	A field study designed to survey as many species of elasomobranch hosts as possible in order to characterize and describe their respective tapeworm parasites.
[REDACTED]	[REDACTED]	Bird Banding for Teaching Field Methods to Students	1/4/2020	None	Birds (various species)	A teaching/research protocol covering activities associated with the demonstration of field techniques used by ornithologists to safely capture, measure and band wild birds. All data collected in the course of these training activities will also be entered into the national database of the Bird Banding
[REDACTED]	[REDACTED]	Mechanisms of Area Sensitivity and Impacts of Habitat Fragmentation on Bird Populations	4/23/2020	None	Birds (various species)	A field study to develop and integrative model of area sensitivity and test the relative importance of mechanisms and interactions among them. This includes measuring aspects of species' breeding success, reproductive success, resource availability, mortality, and immigration to patches in a
[REDACTED]	[REDACTED]	The Ecology and Conservation of Tidal Marsh Birds	4/23/2020	None	Birds (various species)	A field study designed to collect information on population size, distribution, fecundity and survival rates in a variety of tidal marsh birds, including saltmarsh sparrows, seaside sparrows, Nelson's sparrows and willets.
[REDACTED]	[REDACTED]	Disentangling the Interactions among Hummingbirds, Mites and Tropical Flowers	4/1/2021	None	Hummingbirds	A project that aims to characterize the relationships between hummingbirds, the flowers they visit, and the mites that live on these flowers. Understanding these interactions allows researchers to make predictions about the fate of any of the three based on the extinction of the others.
[REDACTED]	[REDACTED]	Evolutionary Studies in Slender Salamanders (Batrachoseps) and Skinks (Plestiodon)	2/25/2021	Animals are housed outside of primary facilities as they are transported from field sites to UCONN. Reduced sanitation frequency of primary enclosures (reduces stress in these species) Animals are not	Salamander species	A research protocol in which the investigator will use a combination of field surveys, lab trials and molecular work to evaluate population differentiation and the role of local adaption in generating phenotypic divergence across the group.

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[REDACTED]	[REDACTED]	Field Herpetology-EEB3898-12	4/25/2021	None	Salamanders, Frogs, Turtles, Lizards, Snakes	A teaching protocol conducted in the field which is designed to familiarize/train students in the identification, natural history, and conservation of Connecticut's amphibians and reptiles through direct field experience.
[REDACTED]	[REDACTED]	Ecology and Evolution of Lungless Salamanders (Family Plethodontidae) in the Eastern United States	5/29/2021	Animals are housed outside of primary facilities as they are transported from field sites to UCONN, as well as during the metabolism studies (environmental chambers are located within the lab space)	Salamander species	A field study in which the investigator wishes to characterize the molecular and morphological diversity of lungless salamanders in the Eastern United States. This research will contribute to cataloguing biodiversity in this region, with the ultimate goal of evaluating conservation significance
[REDACTED]	[REDACTED]	Effects of Introduced Parasitic Nest Flies on Birds in the Galapagos Islands	12/7/2020	None	Birds	The primary objective is to study the impact of the parasitic nest fly on host fitness in passerine species found in the Galapagos, and the concomitant evolution of host defense in these species. The PI will utilize common field techniques in wild caught birds to meet her research goals. Mist netting is employed in
[REDACTED]	[REDACTED]	Evolutionary Ecology of Longstanding Host-Parasite Interactions Using a Box-Nesting Bird System	2/20/2021	None	Birds	The primary objective is to study how host species of interest (Eastern bluebird, Tree swallows, Black-capped chickadee) evolve defense mechanisms in response to the parasitic nest fly Protocalliphora. The PI will utilize common field techniques in wild caught birds to meet her research goals. Nest
[REDACTED]	[REDACTED]	Effects of the Host Microbiota on the Immune Response of Zebrafish	9/29/2022	Zebrafish embryos up to 10 DPF are not fed.	Zebrafish (transgenic & wildtype)	The primary objective is to use a zebrafish model to determine whether early-life gut microbiota affects innate immune gene expression. The investigator will manipulate the early-life microbiota of mpeg 1 mutants and wildtype zebrafish and then determine their innate immune gene expression.
[REDACTED]	[REDACTED]	Comparing the Post-winter Immune Response and Microbiota of Freeze-tolerant and Freeze-intolerant Ambhíbians	9/8/2022	Animals cannot be visualized daily during overwintering in outdoor mesocosms (frogs are overwintering in leaf litter and soil and shouldn't be disturbed)	Frogs, toads	A protocol designed to explore whether the gut microbiota influences the immune system of hibernating and and post-hibernating ambhíbians. The investigator will utilize free-tolerant (wood frog) and freeze-intolerant (american toads) ambhíbians housed in outdoor mesocosms to explore how
[REDACTED]	[REDACTED]	Title 1	1/0/1900	0	0	0
[REDACTED]	[REDACTED]	Impacts of Juvenile Size, Migratory Readiness and Climate Change-imposed Habitat Fragmentation on Recruitment to the	6/25/2020	None	Fish	The PI will investigate Alewife population dynamics through coupling of physiological and demographic studies. Data on Alewife dynamics will inform more effective management strategies.

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[REDACTED]	[REDACTED]	The Mechanics of Air-breathing in Aquatic Larval Amphibians	9/26/2021	Animals are not fed daily (Because of their low energy requirements, ectotherms do not usually need frequent feedings, at least in comparison to mammals and birds. The key criteria for feeding schedules	Larval frogs, toads, salamanders	A protocol with the goal of examining the kinematics and mechanics of air-breathing in larval frogs and salamanders using high speed videography, in order to understand how the system works, changes over time, and varies with respect to species, size, development etc.
[REDACTED]	[REDACTED]	Population Ecology in a Burned Forest Specialist	3/25/2022	None	Woodpeckers	A project aimed to understand how fire impacts the Black-backed Woodpecker. The research focuses on the population size and structure of the Black-backed Woodpecker. The goal is to gather fine-scale data on individual woodpeckers of multiple ages, including movements, foraging habits and
[REDACTED]	[REDACTED]	Hummingbird Thermal Physiology Along an Elevational Gradient	4/8/2022	A subset of birds will be killed humanely using thoracic compression (birds will be used as museum specimens and should not be contaminated with chemical residues). Housing at an offsite field	Hummingbirds	Field research with two components: (1) a survey study using field sampling and metabolic measurements to collect information on the thermal tolerance and oxygen carrying capacity of hummingbirds along an elevational gradient, and (2) a housing/experimental component in which
[REDACTED]	[REDACTED]	Evolution of Salamander Communities	3/8/2021	A subset of larvae are consumed as food by another subset of animals (Study of natural predator/prey interactions), animals housed outside of vivaria facilities.	Salamanders, Frogs, Newts	A quasi field study designed to investigate how local adaptations in amphibians affect invertebrate and plant communities. Amphibians in mesocosms (artificial ponds) will be challenged with the presence of predators to investigate how individuals and communities respond.
[REDACTED]	[REDACTED]	Nanomaterials Delivery Platform Against Arthritis	3/7/2022	NPG Compounds (Novel formulations being tested, pharma grade not available), Food provided at cage floor level (post sx animals may have trouble reaching food)	Mice	A protocol designed to test novel nanoparticle therapeutics in a mouse model of osteoarthritis.
[REDACTED]	[REDACTED]	Nanomatrix for Fracture Repair	3/7/2022	NPG Compounds (Novel formulations being tested, pharma grade not available), Food provided at cage floor level (post sx animals may have trouble reaching food)	Rat	A protocol designed to test novel nanoparticle therapeutics in a rat model of growth plate fracture.
[REDACTED]	[REDACTED]	Engineering Proteins for Detection and Modulation of Neural Protein Function	4/2/2021	None	Mice Chickens	A tissue harvest protocol in which neuronal cells are collected post mortem to maintain cell cultures. Neuronal cells are needed in order to develop technologies for visualizing and manipulating proteins in neural cells.
[REDACTED]	[REDACTED]	Neuronal Mechanisms for Sound Analysis in the Awake Rabbit Auditory System	1/2/2022	Multiple major survival surgery (multiple surgeries needed to achieve research goal: related components of protocol), Major surgery performed outside of dedicated surgical suite (surgery requires specialized recording	Rabbits	A set of experiments designed to investigate the neuronal substrate and circuitry involved in sound recognition, detection and segregation in the CNS of an awake animal. This is achieved by recording the electrical activity of single neurons within the brain structures of interest while the rabbits are

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[REDACTED]	[REDACTED]	Afferent Mechanisms of Colorectal Hypersensitivity	7/11/2021	Withholding of treatment/analgesics in the IBS model (treatments would interfere with the disease presentation that the investigator is studying), NPG Compounds (Necessary to	Mice	A protocol with the primary objective of investigating the mechanisms of visceral pain and hypersensitivity in a mouse model of IBS.
[REDACTED]	[REDACTED]	Study of a Robotic Manipulator Designed for In Vitro Fertilization of Zebrafish Eggs	9/27/2020	None	Zebrafish	A protocol supporting procedures using zebrafish to test the efficacy of a new virtual reality based microscopic robotic manipulation system that will be used to fertilize eggs and evaluate the viability of the resultant embryos.
[REDACTED]	[REDACTED]	Functional Biomaterials for Bioimaging	8/8/2022	NPG Compounds (Novel compounds are not available in pharmagrade), systemic analgesia withheld for tumor bearing model.	Mice	A protocol designed to evaluate a novel bioengineered nanoparticle which will be used to target brain cancer cells for imaging. Another study evaluates functional tattoo ink for measuring vital signs.
[REDACTED]	[REDACTED]	Biodegradable Pressure Sensor Subcutaneous Characterization and Evaluation	7/10/2020	Single housing (necessary in order to protect the instrumentation/electrodes)	Mice, Rats	To characterize and evaluate a biodegradable force sensor subcutaneously in a rodent model. The PI's long-term goal is to develop a pressure sensing device for the human knee.
[REDACTED]	[REDACTED]	Repair of Rodent Calvarial Defect Using Ultrasound-Stimulated Electrical Stimulation	12/2/2021	Single housing (necessary in order to protect the instrumentation), NPG Compounds (Novel compounds are not available in pharmagrade)	Mice	A proof of concept protocol in which a piezoelectric nanogenerator device is used to stimulate bone regeneration in a rodent model of calvarial defect.
[REDACTED]	[REDACTED]	Microneedle Transdermal Model Vaccine Drug Release Characterization and Evaluation	9/16/2021	NPG Compounds (Novel compounds are not available in pharmagrade)	Mice, rats	A protocol designed to develop and evaluate a novel vaccine delivery platform using a microneedle patch.
[REDACTED]	[REDACTED]	Rabbit Medial Femoral Condyle Defect Repair	7/11/2022	NPG compounds (novel compounds-pharma grade not available), Single housing of social species (necessary component of experimental design-instrumented post-sx animals cannot be housed in	Rabbits	A protocol designed to develop a synthetic graft system that will be an alternative to current bone cartilage repair materials.
[REDACTED]	[REDACTED]	CT 4-H Goat Day	4/8/2022	None	Goats	The primary objective is to cover 4-H extension activities related to goats-a species that is not currently covered under our ANSCI general husbandry protocols. Typically extension activities are considered to be covered under those protocols. As in most 4-H activities, privately owned animals will be

Protocol #	Dept. Code/PI	Title	Expiration date	Exceptions	Species	Summary
[REDACTED]	[REDACTED]	Neural and Morphological Alterations After Non-Invasive ACL Rupture: Identifying Modifiable Risk Factors of Post-Traumatic	2/20/2021	NPG compounds (pharma grade not available), forced exercise (necessary component of experimental design), noxious stimuli (mild electric shock used to maintain the rat on the treadmill)	Rats	A research protocol designed to investigate the interrelationships between protein synthesis, muscle fiber damage and the immune system by evaluating the role of eccentric exercise and its ability to mitigate muscle fiber damage after injury.
[REDACTED]	[REDACTED]	Neural and Morphological Alterations After Non-Invasive ACL Rupture: Identifying Modifiable Risk Factors of	1/7/2021	Forced exercise (necessary component of experimental design), noxious stimuli (mild electric shock used to maintain the rat on the treadmill), cage level feeding in instrumented animals (necessary to protect	Rats	The protocol describes a series of procedures in support of her KO1 grant; the main tenant of this grant is to identify rehabilitation strategies capable of promoting muscle and joint health after ACL injury. In this protocol, Dr. Lepley proposes to use a rat model of ACL injury to investigate the role of eccentric
[REDACTED]	[REDACTED]	MCB Developmental Biology Laboratory-Zebrafish	3/25/2021	Fish are not provided with structural environmental enrichment, although they are housed in groups.	Zebrafish	A teaching protocol covering activities associated with the Developmental Biology Lab course in MCB. Students will perform experiments with zebrafish embryos focusing on the mechanisms that pattern the embryo during vertebrate development and how these mechanisms are explored using the
[REDACTED]	[REDACTED]	Development and Diseases of the Musculoskeletal System	5/9/2020	Withholding analgesia after surgical procedure (analgesia acts as confounding variable), NPG compounds (pharmaceutical grade not available), delayed weaning of weaker strains	Mice (transgenics)	This protocol focuses on two main areas of study: the regulation of skeletal muscle development and regeneration and the transcription factors that play a role in the process, and, the mechanisms of abnormal bone growth in muscle tissue with a focus on the identification and molecular
[REDACTED]	[REDACTED]	The Avian Microbiome Atlas	4/3/2021	Thoracic compression for euthanasia (necessary component of experimntal design)	Birds	The primary objective is to gather data about the microbiome of 2 species, the American Robin and the House Sparrow. Ultimately the PI hopes to leverage this data to optimize the process of sampling the microbiome of various species, as well as to characterize the microbiome of these two species in fine
[REDACTED]	[REDACTED]	Environmental Antibiotic Effects on the Mallard Microbiome	8/8/2021	None	Birds	The primary objective is to gather data from mallard ducks to investigate how environmental antibiotic pollution impacts the microbiomes of the mallard duck and the individual microorganisms that inhabit its feathers. The purpose is to show how environmental antibiotic pollution effects the
[REDACTED]	[REDACTED]	Mechano-sensing and the Integration of Cytoskeletal Function in Moving Cells	10/29/2020	None	Fish	The investigator seeks to how force generation at the molecular level leads to movement at the cellular level. Cell motility is fundamental to many important physiological processes such as embryonic development, wound healing and immune function. The PI will use fish to harvest scales which will be
[REDACTED]	[REDACTED]	Measurements of Immune Function in Murine Systems	11/16/2020	NPG Compounds (pharma grade not available), withholding of analgesics to treat animals (analgesics act as a confounding variable in these studies, instead animals are removed from the study	Mice (wildtype, transgenics)	A protocol describing activities using a mouse model in support of a series of separate projects designed to investigate the role of metallothionein in immunomodulation.

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[REDACTED]	[REDACTED]	Identification/Characterization of the Presomitic Mesoderm Progenitor and Niche and a TS13 Cell Lineage Map	7/10/2020	Soiled bedding from male cages is used in female cages to induce estrous.	Mice	The goal of this project is to generate a first draft of a single cell resolution map of the mouse embryo. In addition the PI hopes to identify and characterize a set of stem cells that give rise to bone, muscle, cartilage and fat of vertebrate embryos.
[REDACTED]	[REDACTED]	The Hawaiian Bobtail Squid, <i>Euprymna scolopes</i> , as a Model for Host-microbe Research	2/10/2022	Tanks are all in/all out, emptied and sanitized between groups of animals, spot cleaned as needed.	Squid	The bobtail squid serves as a model animal host for studying relationships with beneficial bacteria. This protocol focuses on interactions between the immune system of the squid host and bioluminescent bacteria .
[REDACTED]	[REDACTED]	Studies of Imprinted Gene Expression and Genome Stability in Mice	9/26/2022	None	Mice	Using mouse models of Turner Syndrome the investigator seeks to understand how candidate genes associated with Turner Syndrome are regulated. Essentially a breeding protocol in which pups with the target genes of interest are harvested from euthanized dams. In some cases, adult
[REDACTED]	[REDACTED]	Survival of Saltmarsh Obligate Birds	5/6/2022	None	Birds	A field study designed to survey Clapper Rails, American Ducks and Willets at various field sites in Connecticut in order to estimate population size and assess survival rates.
[REDACTED]	[REDACTED]	Amphibian Response to Changes in Habitat and Temperature in Outdoor Mesocosms	4/27/2020	Animals cannot be visualized daily during overwintering in outdoor mesocosms (frogs are overwintering in leaf litter and soil and shouldn't be disturbed)	Frogs	The goal of this protocol is to understand how amphibian populations response to the mean increases in temperature and also to increased variability in temperature. Amphibians are housed in outdoor mesocosms that are designed to mimic natural habitats. This research is critical to being able to estimate
[REDACTED]	[REDACTED]	Wildlife Cameras to Detect Medium and Large Sized Mammals in Exurban Landscapes	10/16/2020	None	Large Mammals	This is a new field research protocol covering procedures in which either a scent or visual lure will be used to attract mammals to game cameras that have been set up in various locations throughout Connecticut. Animals will not be handled, but since a lure is being used to attract the animals, a protocol is
[REDACTED]	[REDACTED]	Teaching Field Methods for Trapping and Handling of Fish and Wildlife	7/12/2021	Exposure to noxious stimuli (electrofishing is used to collect wild fish), Thoracic compression used for euthanasia of small mammals (In emergency situations in the field, small mammals may be euthanised	Fish, Amphibians, Reptiles, Small mammals	A teaching protocol designed to enhance environmental stewardship while equipping high school students with scientific tools and knowledge to enable them to conduct local conservation projects while gaining exposure to various aspects of the environment. Students will be provided hands on
[REDACTED]	[REDACTED]	Third Statewide Assessment of Mercury Contamination in Fish Tissue from Connecticut Lakes	7/7/2022	Exposure to noxious stimuli (electrofishing is used to collect wild fish), Rapid chilling used for euthanasia of fish in the field (In order to preserve the whole body fish for chemical analysis without introducing	Fish	A protocol describing sampling activities in which wild bass fish will be captured, biopsied, with some collected for tissue analysis. The objective is to sample and analyze the mercury contamination in the tissue of largemouth bass in CT lakes to evaluate trends.

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[REDACTED]	[REDACTED]	Evaluation of Dietary Factors on Lipid Metabolism and Atherosclerosis	2/6/2020	NPG Compounds (pharma grade not available), Short term fasts prior to blood collection (necessary component of nutrition study)	Mice	This protocol is an extension of the PIs previous work with Sphingomyelin (SM). The goal of the protocol is to examine whether dietary phospholipids, including SM can prevent the development of heart disease (atherosclerosis) in mice and shed light on underlying molecular mechanisms.
[REDACTED]	[REDACTED]	Evaluation of Dietary Lipids on Obesity and Lipid Metabolism	7/19/2020	NPG Compounds (pharma grade not available) Overnight fasts prior to blood collection (necessary component of nutrition study) Single housing (necessary component of experimental design)	Mice	A group of studies to investigate the effects of Sphingomyelin from eggs and milk on blood lipids, intestinal inflammation and metabolic endotoxemia.
[REDACTED]	[REDACTED]	Evaluation of Serine Dipeptide Lipids on Cholesterol Metabolism and Atherosclerosis	3/8/2021	NPG Compounds (pharma grade not available)	Mice	The protocol covers activities that the PI will employ to examine whether the bacterial molecule Lipid 654 can promote the development of atherosclerosis in a mouse model. Study 1 is an acute study to determine whether/what dose oral administration of Lipid 654 can stimulate a systemic
[REDACTED]	[REDACTED]	Assessing Intestinal Lipid Absorption in Mice	6/18/2020	NPG Compounds (pharma grade not available) Systemic analgesia withheld in colitis model (analgesics could interfere with the disease model), overnight fasting	Mice	A series of experiments designed to investigate the role of the protein apoC-III in intestinal tissue, and its contribution to cardiovascular disease and diabetes.
[REDACTED]	[REDACTED]	Evaluation of Dietary Factors on Energy Metabolism, Inflammation and Fibrosis	6/9/2022	Food restriction (8 hr restriction prior to blood draws), NPG Compounds (pharma grade not available), Single housing (necessary component of experimental design)	Mice (wild type and knockout)	A protocol focused on the identification of molecular mediators that are involved in lipid metabolism and inflammatory signalling pathways, and on the elucidation of molecular mechanisms by which dietary factors play a role.
[REDACTED]	[REDACTED]	Examination of Bioavailability and Tissue Distribution of Astaxanthin Encapsulated in Lipid Particles	2/23/2020	NPG Compounds (novel formulations being tested, pharma grade not available), short term (12 hours) fasting prior to gavage (necessary component of experimental design).	Mice	This protocol will investigate whether a nanoparticle encapsulation formulation of Astaxanthin (ASTN) can improve the bioavailability and stability in vivo.
[REDACTED]	[REDACTED]	Effects of Deepwater Horizon Oil on Mouse Reproductive and Immune Functions Upon Oral Exposure	2/21/2022	NPG Compounds (crude oil contaminants being tested, pharma grade not available)	Mice	A study designed to evaluate the effect of crude oil exposure on mouse immune function and reproduction by measuring T-Regs after oral exposure.
[REDACTED]	[REDACTED]	Evaluation of Immune Functions in Free-ranging Marine Mammals and Sea Turtles	3/18/2022	None	Mice	The objective of this study is to evaluate immune functions in free-ranging marine mammals and sea turtles. A mouse model will be used concurrently with marine mammal/sea turtle immune assays for quality control in view of the potential day to day variability.

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[REDACTED]	[REDACTED]	Immunotoxic Effects of PFOS and PFOA Exposure and Potential for Exacerbation upon Statin Drug Treatment	6/26/2022	NPG Compounds (industrial grade chemical contaminants being tested, pharma grade not available)	Mice	A study designed to evaluate the effect of statin drug treatment on the susceptibility to the toxic effects of PFASs on the immune system. PFASs are industrial chemical contaminants that are ubiquitous in the environment, and that are known to have an effect on the immune system.
[REDACTED]	[REDACTED]	Polyvalent T Cell Mosaic Vaccine to Cross Protect Against Heterologous PRRSV Strains	4/4/2020	Non-Pharma grade compounds (pharma grade not available)	Pigs	The protocol objective is to develop novel vaccine candidates to protect swine against PRRSV.
[REDACTED]	[REDACTED]	Mycoplasma pneumoniae and Sickle Cell Disease	1/19/2020	None	Mice	Experiments designed to investigate the interaction between sickle cell disease and Mycoplasma pneumoniae infection. Infection with this organism is correlated with Acute Chest Syndrome (ACS), a leading cause of death for patients with sickle cell disease.
[REDACTED]	[REDACTED]	Mechanisms of Vibrio parahaemolyticus and Enterohemorrhagic E. coli (EHEC) Virulence	9/5/2020	No acclimation period for animals prior to start of experiment (necessary component of experimental design).	Rabbits	A protocol designed to investigate the underlying genetic mechanisms contributing to virulence of two main pathogens: v. parahaemolyticus and Enterohemorrhagic E. coli (EHEC).
[REDACTED]	[REDACTED]	Mycoplasma gallisepticum Virulence and Vaccine	2/19/2022	Primary enclosures are spot cleaned and completely cleaned/sanitized at the end of the study, which lasts for up to 5 weeks.	Chickens	A set of experiments designed to study genes important for mycoplasma gallisepticum to cause disease. In one experiment, birds will be infected with mutant strains of mycoplasma gallisepticum, and will be bled, euthanized and necropsied after 14 days to assess the pathological impact of mutant
[REDACTED]	[REDACTED]	Development of Novel Nanoparticle Vaccines For Infectious Bronchitis Virus	7/24/2021	Non-pharma grade compounds (pharma grade not available), Reduced cleaning schedule (chickens are housed in isolators during experiments that are designed to be "all in all-out", although manure and	Chickens	Set of studies designed to identify and test the immunogenicity of nanoparticle vaccine constructs for avian respiratory diseases with a virus challenge component.
[REDACTED]	[REDACTED]	Dysfunctional Immunity in Sickle Cell Disease Mice	10/25/2020	Subset of mice may reach a weight loss target of 30% without intervention due to disease progression (necessary component of research paradigm, as some mice recover in this disease model	Mice, rats	The protocol describes procedures in support of experiments designed to elucidate the factors that lead to changes in the immune system and reduced vaccine effectiveness in people with Sickle Cell Disease (SCD). Using a mouse model of SCD, the investigator will perform a number of manipulations to help
[REDACTED]	[REDACTED]	Ecology and Evolution of Snake Fungal Disease	9/4/2021	None	Snakes	The protocol describes procedures in support of field survey research designed to sample as many snakes as possible in order to characterize and monitor the presence of Snake Fungal Disease (SFD) in the wild population in Connecticut.

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[REDACTED]	[REDACTED]	The Effects of Antibiotics on Allergic Airway Disease in Mice	11/26/2021	Non-pharma grade compounds (novel compounds beng evaluated pharma grade not available)	Mice	A protocol covering a number of experiments designed to study the effects of antibiotics on the severity of asthma using a mouse model.
[REDACTED]	[REDACTED]	An Infectious Mouse Model of Crohn's Disease	6/18/2021	None	Mice	A project designed to establish a mouse model of Crohn's disease using Chlamydis suis; the goal is to evaluate whether this model reproduces the blocked lymphatics that are hallmarks of Crohn's disease in this model.
[REDACTED]	[REDACTED]	Nanoparticle Delivery of CRISPR/Cas-9-based Antimicrobials	5/1/2020	Non-pharma grade compounds (pharma grade not available)	Mice	The protocol objective is to determine if LDL/CRISPR-Cas9-entA nanoparticle can kill S. aureus in a murine mastitis model. The project will provide fundamentals for the PI's long-term goal to develop CRISPR-Cas9-based antimicrobials for not on S. aureus, but other pathogens as well.
[REDACTED]	[REDACTED]	Nanoparticle Delivered Nucleic Acids for Treating Anemia	8/12/2021	Non Pharma grade compounds (pharma grade not available-novel drug formulations)	Mice	A protocol describing the evaluation and testing of novel gene therapies to treat blood disorders, like anemia, in a mouse model.
[REDACTED]	[REDACTED]	In Vitro/In Vivo Correlations of Parenteral Drug Products	10/18/2019	Single housing of social species (Male rabbits may not acclimate to social housing schemes), NPG compounds (pharma grade not available-novel drug formulations)	Rabbits	A protocol using a rabbit model to develop in vitro/in vivo correlations (IVIVC) for drug products, specifically microsphere formulations of risperidone, naltrexone, medroxyprogesterone acetate and leuprolide acetate.
[REDACTED]	[REDACTED]	Tissue engineering to Enhance Biosensor Function in-vivo	7/6/2020	Single housing of social species (Instrumented animal singly housed to maintain integrity of system), withholding systemic analgesia after minor invasive procedures (biosensor implantation via injection)	Rats	A protocol designed to evaluate the efficacy/functional lifetime of implantable biosensors and the related pharmacokinetics and pharmacodynamics of tissue response modifiers that may be used in concert with the biosensors in order to improve the tissue response to the implant.
[REDACTED]	[REDACTED]	Pre-clinical Testing of Glucose Sensors in Rabbits	1/21/2021	Single housing (male rabbits may be incompatible), Non-pharma grade compounds (pharma grade not available).	Rabbits	A protocol covering procedures associated with the pre-clinical testing of implantable biosensors in rabbits. These studies are a necessary step in order to establish the sensor's efficacy and safety before moving to human trials.
[REDACTED]	[REDACTED]	Metabolic Flexibility Studies Using Multi-analyte Sensors	1/24/2021	Non-pharma grade compounds (pharma grade not available), single housing (Necessary component of experimental design)	Rats	A protocol designed to optimize biosensor coatings in order to prevent the inflammation and fibrous encapsulation that has a deleterious effect on the longevity and functionality of long-term implantable biosensors.

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[REDACTED]	[REDACTED]	Method of Dissolution for Nanosuspension/ Nanoparticles	10/28/2021	Non-pharma grade compounds (pharma grade not available), single housing (Necessary component of experimental design)	Rats	A protocol designed to evaluate and compare in vivo performance of nano vs macro sized formulations of pharmaceutical compounds.
[REDACTED]	[REDACTED]	In Vivo Performance Testing of Implant Drug Products	6/4/2022	Single housing of social species (Male rabbits may not acclimate to social housing schemes), Non Pharma grade compounds (pharma grade not available-novel drug formulations)	Rabbits	A protocol designed to develop in vitro/ in vivo correlations (IVIVC) for in situ forming drug releasing implants. If an IVIVC can be developed it can eliminate the need for some in vivo testing in place of future clinical testing to understand the in vivo performance of the drug products. This will
[REDACTED]	[REDACTED]	Tissue Engineering to Enhance Biosensor Function in vivo: Diabetic Rat Model	6/3/2022	Non Pharma grade compounds, Single housing (instrumented rats are singly housed)	Rats (Sprague Dawley)	A protocol to study the long term efficacy of sensor biocompatible coatings in STZ-induced diabetic rats to investigate semi-implantable wired sensor performance in diabetic animals to evaluate the sensor performance. The PI also plans to develop an implantable biosensor system that is able to maintain
[REDACTED]	[REDACTED]	Nanocarriers for Enhancing the Effects of Cancer Chemotherapy	3/4/2021	Non-pharma grade compounds (novel compounds not available in pharma grade)	Mice (knockouts) Rats	A series of experiments designed to evaluate the use of nanocarriers as an aid in chemotherapy. Nanocarriers co-deliver an oxygen carrying medium along with dexamethasone in order to reduce hypoxia and elevated interstitial pressure in tumors. The hypothesis is that by restoring the
[REDACTED]	[REDACTED]	Neutron-activatable Nanoparticles for Targeted Radionuclide Therapy	8/19/2021	Withholding of analgesia in tumor bearing mice (analgesia could act as a confounding variable), Non-pharma grade compounds (novel compounds not available in pharma grade), Multiple species housed in the	Mice	A series of experiments designed to develop targeted nanoparticles that can be neutron activated to yield therapeutic amounts of a high-energy beta-emitting radionuclide (166 Ho) for treatment of cancers.
[REDACTED]	[REDACTED]	Cellular Responses to Hepatotoxicants	10/24/2021	Non-pharma grade compounds (non-pharma grade not available), 24 hr fasting period (necessary for liver toxicity testing), Withholding analgesia (analgesics could act as a confounding variable in	Mice (transgenic)	Both transgenic and wild type mice are used to investigate the biochemical and molecular responses of the liver to potentially toxic chemicals. The processes involved in the handling and elimination of drugs, toxins and contaminants as well as the effect of liver toxins in drug transport mechanisms is also
[REDACTED]	[REDACTED]	Neuronal Subtype and Circuit-specific Epigenetic Mechanisms in Addiction	6/12/2021	Non-pharma grade compounds (non-pharma grade not available), Single housing for social species (necessary after catheter placement), food restriction (necessary component of behavioral	Rats	A protocol describing experimnts and procedures in a rat model of addicitin to explore epigenetic processes within genetically defined neural populations to better understand addiction pathophysiology.
[REDACTED]	[REDACTED]	Epigenetic Mechanisms in Primary Neurons	3/6/2022	Single housing for social species (pregnant dams ordered one at a time), food restriction (necessary component of behavioral testing),	Rats	A tissue harvest protocol. Primary neurons are isolated from E17-E18 rat pups to study the molecular effects of epigenetic inhibitors in order to better understand how epigenetic mechanisms contribute to pathophysiology of neurological and/or psychological disorders.

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[REDACTED]	[REDACTED]	Novel Activators of Gamma T Cells	6/5/2022	NPG compounds (novel chemotherapeutics),	Mice	A protocol with the goal of identifying new cancer fighting drugs that function through the stimulation of the immune system.
[REDACTED]	[REDACTED]	Impact of Neonatal Drug Exposure on Interindividual Variations in Drug Metabolism and Response in Adulthood	12/15/2019	Non-pharma grade compounds (pharma grade not available in the formulation/concentrations needed), Short term fasting <16 hrs (necessary component of drug metabolism testing)	Mice (wild type & knock-outs)	A study designed to determine whether neonatal drug exposure is a factor contributing to interindividual variations in drug metabolism.
[REDACTED]	[REDACTED]	Impact on Hepatic Ontogenic Expression of Drug Metabolizing Enzymes by Obesity	3/18/2021	None	Mice (wild type, transgenics)	The primary objective is investigate the impact of obesity on hepatic expression of drug metabolizing enzymes, specifically, cytochrome P450 enzymes; P450 enzymes have been shown to play an important role in drug metabolism.
[REDACTED]	[REDACTED]	Impact on Drug Metabolism by Drug-Induced Liver Injury	3/28/2021	Non-pharma grade compounds (pharma grade not available in the formulation/concentrations needed), Longer term fasting for 24 hrs (necessary component of drug metabolism testing), Withholding analgesia	Mice (wild type)	A study designed to determine how drug-induced liver injury (DILI) impacts subsequent drug metabolism.
[REDACTED]	[REDACTED]	Role of Long Non-coding RNAs in the Regulation of Expression of Drug Metabolizing Genes	7/8/2022	Non-pharma grade compounds (pharma grade not available in the formulation/concentrations needed)	Mice (wild type, transgenics)	The primary objective is investigate the impact of obesity on hepatic expression of drug metabolizing enzymes, specifically, cytochrome P450 enzymes; P450 enzymes have been shown to play an important role in drug metabolism.
[REDACTED]	[REDACTED]	Analysis of Neural Stem Cells	6/12/2020	Delayed weaning (weak genetic strain benefits from delayed weaning), Food provided at cage floor (weaker strains benefit from special husbandry), Non-pharma grade compounds (pharma grade not	Mice (transgenics)	A protocol utilizing several different strategies to investigate the neural stem cell niche in developing, adult and aging mouse brain. The four foci of this work are: determining what factors regulate neurogenesis in the adult brain, what other stem cell mediated repair mechanisms are used in the brain, how is
[REDACTED]	[REDACTED]	In Vivo Regulation of Postsynaptic GABAA Receptor Number and Synaptic Strength	10/14/2021	NPG compounds (PG compounds not available), Single housing (necessary component of experimental design. Necessary to protect instrumentation). Food provided at cage floor level for	Mice (transgenics) Rats	A protocol utilizing several different strategies to investigate the role that GABAA receptor interacting proteins play in the postsynaptic localization of GAABA receptors.
[REDACTED]	[REDACTED]	Physiology and Anatomy Frog Teaching Experiments- Fall, Spring and Summer	9/5/2020	Animals are not fed daily (Because of their low energy requirements, ectotherms do not usually need frequent feedings, at least in comparison to mammals and birds. The key criteria for feeding schedules	Frogs, bullfrogs, grass frogs	A physiology and neurobiology teaching protocol describing a set of laboratory demonstrations using frogs. Laboratories are hands-on and designed to provide an introduction to the function and physiology of skeletal muscle, the role of anti-diuretic hormone, and the electrical properties of

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[REDACTED]	[REDACTED]	Physiology and Neurobiology Experiment: Rodents	9/11/2020	Non-pharma grade compounds (pharma grade not available)	Mice, rats	A physiology and neurobiology teaching protocol describing a set of laboratory demonstrations using mice. Laboratories are hands-on and designed to provide an introduction to the function of thyroid tissue and the role of oxytocin in milk release. Procedures on live animals include tissue
[REDACTED]	[REDACTED]	2265/2275: The Effects of Testosterone on Chick Development	3/27/2021	Non-pharma grade drugs (pharma grade not available in the concentration/necessary vehicle)	Chickens	A physiology teaching protocol describing a laboratory demonstration using chickens. Laboratories are hands-on and designed to demonstrate the effects of testosterone on the development of secondary sexual characteristics in chicks. Undergraduates will only handle live animals. All live animal
[REDACTED]	[REDACTED]	Cellular Neurophysiology of Hypothalamic Neural Circuits Governing Arousal and Energy Balance	11/13/2019	Use of non-pharma grade compounds (compounds not available in pharma grade), single housing of social species (animals with headmounts will be singly housed to protect the integrity of the equipment),	Mice (transgenic s)	A set of studies designed to elucidate the cellular, synaptic and circuit level mechanisms through which neural circuits in the mammalian hypothalamus regulate fundamental behavioral states, such as sleep, wakefulness and energy balance, in health and disease states.
[REDACTED]	[REDACTED]	Understanding the Role of RNA Processing in Mammalian Development	11/20/2019	Use of non-pharma grade compounds (compounds not available in pharma grade), long-term fasting (36 hours) of experimental animals	Mice	The investigator seeks to understand how starvation and the addition of specific macronutrients of the diet affect the molecular makeup of the arcuate nucleus, the central regulator of eating behavior within the brain. The investigator is interested in the expression levels of the minor spliceosome
[REDACTED]	[REDACTED]	Mechanisms of Neocortical Development	4/11/2021	Use of non-pharma grade compounds (compounds not available in pharma grade), Delayed weaning (necessary component of experimental design, some selected weaker strains may require delayed	Rats Mice (transgenic s)	A protocol focused on the application of genetic manipulation technologies (i.e. transfection and germline insertional mutagenesis) in rodents to determine the cellular and developmental roles of multiple genes in the development of the neocortex. This work may serve to uncover the
[REDACTED]	[REDACTED]	In Vivo Characterization of Cardiorespiratory Function	5/2/2020	Non-Pharma grade compounds (pharma grade not available), Single housing (required for post-op animals to protect the incision site)	Mice, Rats	The PI's main objective is to characterize cellular and molecular mechanisms of cardiorespiratory control. The PI will turn on/off specific groups of neurons that he thinks contribute to breathing while measuring respiratory activity.
[REDACTED]	[REDACTED]	Cellular and Whole Animal Mechanisms of Chemoreception	10/18/2019	Use of non-pharma grade compounds (compounds not available in pharma grade), Use of urethane (NPG) as an anesthetic (necessary tfor experiments assessing autonomic function, as it is	Rats (transgenic) Mice (transgenic s)	The PI seeks to explore the mechanism and function of chemoreceptive cells in the brain that modulate respiration. The target tissues are located in an area of the brain stem called the retrotrapezoid nucleus (RTN) that has been shown to contain chemoreceptive cells. These cells are believed to sense changes in CO ₂ , pH
[REDACTED]	[REDACTED]	NG2 Cells in the Neural Network	6/19/2022	NPG Compounds (pharma grade not available), Trio mating scheme (improves viability in weaker strains), Multiple species housing (BSL-2), multiple major survival surgery (necessary component	Rats Mice (transgenic s)	A protocol covering a variety of in-vivo and in-vitro procedures designed to investigate the function of NG2 glial cells in the mammalian brain.

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[REDACTED]	[REDACTED]	Synaptic and Circuit Representations of Safety	1/7/2021	NPG compounds (pharma grade not available), forced exercise (necessary component of experimental design), noxious stimuli (mild electric shock used to maintain the rat on the treadmill), Chloral hydrate	Rats	The protocol describes a series of procedures in support of experiments designed to investigate the mechanisms by which the brain suppresses the fear response; ultimately the goal is to enhance understanding of emotional regulation, which could lead to novel psychiatric treatments.
[REDACTED]	[REDACTED]	Methods for Serially Multiplexed Labeling in EM Reconstructions of Brain Tissue	2/27/2022	NPG compounds (pharma grade not available), Chloral hydrate anesthesia prior to physical method of euthanasia (necessary to reproduce previous work).	Rats	The primary objective is to develop novel tissue fixation protocols that will allow molecular markers to be easily detected in EM samples. Improving fixation protocols may allow for more detailed circuit mapping of brain regions of interest.
[REDACTED]	[REDACTED]	Regulatory Mechanism of Non-Coding RNAs in Alcoholic and Non-Alcoholic Liver Diseases	9/5/2020	Use of non-standard caging and light schedules (metabolism caging necessary component of experimental design), Non-pharma grade compounds (pharma grade not available), Liquid/alcohol diet	Mice (transgenics)	A set of experiments designed to understand the role of the micro RNA, miR-200c, in the regulation of metabolic diseases of the liver.
[REDACTED]	[REDACTED]	Molecular and Cellular Physiology of Spike Frequency Adaption and Epilepsy Associated KCNQ Channels	8/27/2022	Non-pharma grade compounds (pharma grade not available)	Mice	Both transgenic and wild type mice are used to investigate the effect of specific proteins that play a role in epileptic seizures. Mice lacking these proteins along with wild type mice will be used in both in-vivo and in-vitro work to investigate the role these proteins play in the brain.
[REDACTED]	[REDACTED]	Murine Behavioral Neurogenetics Facility (MBNF): Behavioral Phenotyping Services for Genetic Mouse Models	11/13/2021	Single housing of social species (for behavioral testing), feed restriction (feed is used as a reward and motivator in behavioral tests).	Mice	A protocol covering procedures associated with the Murine Behavioral Neurogenetics Facility (MBNF). The MBNF will perform behavioral assessments of mice for investigators looking to characterize the phenotypes created when genes thought to regulate CNS development and impact
[REDACTED]	[REDACTED]	Hypoxic-ischemic Injury and Behavioral Outcomes in Neonatal Rats	6/13/2022	Single housing of social species (for behavioral testing), Non-pharma grade compounds (compounds not available in pharma grade), withholding analgesia after surgery (very young animals, long acting local	Rats	The investigator will use rats as a model to examine the link between hypoxic-ischemic injury (HI) in neonates and cognitive defects; such as language disabilities, attentional and learning disorders, and cerebral palsy. The long-term goal is to identify mechanisms to improve outcomes in HI in human clinical
[REDACTED]	[REDACTED]	Age Related Changes in Learning and Memory	4/24/2020	Food restriction (necessary component of experimental design), single housing (necessary for food restriction studies), noxious stimuli (animals are exposed to mild electric current to induce	Rats	A set of experiments designed to investigate the effects of hippocampal damage on behavior, as well as to characterize the hippocampal physiological activity in intact young and aged animals.

Protocol #	Dept. Code/PI	Title	Expiration date	Exceptions	Species	Summary
[REDACTED]	[REDACTED]	Animal Learning Lab	8/19/2022	Non-pharma grade compounds (novel compounds are being tested, pharma grade not available) Food restriction (necessary component of experimental design), single housing (necessary for food restriction studies), noxious stimuli (animals are exposed to mild electric current to induce	Rats	A teaching protocol designed to provide students with hands-on experience working in a behavioral research laboratory. Procedures include basic animal handling, training rodents on behavioral tasks, and assisting in rodent surgeries.
[REDACTED]	[REDACTED]	Physiology for Active Sensing in Rodent Animal Models	11/27/2021	Single housing (necessary for fluid restriction studies and to protect the instrumentation for implanted animals), Reversed lighting schedule (necessary to achieve scientific objectives), Scheduled water intake	Rats	Set of experiments designed to examine the neurological bases of how animals perceive, remember and act upon sounds in their environment using both awake and anesthetized research subjects in a variety of behavioral and recording experiments.
[REDACTED]	[REDACTED]	Neuropharmacology of Effort-related Aspects of Motivation	5/25/2020	Non-pharma grade compounds (novel compounds are being tested, pharma grade not available), food restriction (necessary component of behavioral testing in which food is used as a reward), Single housing of social species	Rats, Mice	A set of studies designed to investigate the neurochemical interactions regulating effort related function and dysfunction, with the potential to identify novel treatments for effort related psychiatric symptoms like depression, anergia, fatigue and psychomotor slowing.
[REDACTED]	[REDACTED]	Studies of the Visual Thalamocortical and Corticotectal Systems	8/4/2022	Prolonged restraint (Animal must be awake and motionless for data capture), Analgesia withheld after minor surgical procedures (The use of analgesia would introduce a detrimental confounding variable to the study), Single Housing (Instrumented animals are singly housed), Non-pharma grade compounds (pharma grade not available)	Rabbits	A neuronal recording study in which awake rabbits are used. Animals undergo a major surgical procedure (craniotomy) in which a bar restraint is implanted into the skull in order to stabilize the head during recording sessions. After recovery, animals undergo a variety of minor procedures including the implantation of stimulating and recording electrodes and the extension of the craniotomy. Animals undergo prolonged restraint accomplished by affixing the head bar into a stereotaxic device. Additionally, to help the animals remain motionless, a body stocking is used. Animals can be restrained during recording sessions for as long as 8 hrs day/up to 6 days a week for more than a year. Stimulation of the corticotectal and thalamocortical systems is accomplished either by direct neuronal stimulation using implanted electrodes, or through the presentation of visual stimuli on

Protocol #	Dept. Code/PI	Title	Expiration date	Exceptions	Species	Summary
[REDACTED]	[REDACTED]	Heterosynaptic Plasticity and Encoding in Neocortex	1/17/2022	None	Rats, Mice	A tissue harvest protocol for the acquisition of living brain tissue for use in in vitro studies. These studies are aimed at the characterization of heterosynaptic plasticity in major neocortical neuron types.

Semiannual Program Review Checklist

I. Semiannual Program Review Checklist ⁱ

Institutional Policies and Responsibilities

Date:

1. Animal Care and Use Program ^{NEW}	A*	M	S	C	NA
• Responsibility for animal well-being is assumed by all members of the program (<i>Guide, p 1</i>) [must]	X				
• IO has authority to allocate needed resources (<i>Guide, p 13</i>)	X				
• Resources necessary to manage program of veterinary care are provided (<i>Guide, p 14</i>) [must]	X				
• Sufficient resources are available to manage the program, including training of personnel in accord with regulations and the <i>Guide</i> (<i>Guide, pp 11, 15</i>)	X				
• Program needs are regularly communicated to IO by AV and/or IACUC (<i>Guide, p 13</i>)	X				
• 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, p 14</i>) [must]	X				
• Inter-institutional collaborations are described in formal written agreements (<i>Guide, p 15</i>)	X				
• Written agreements address responsibilities, animal ownership, and IACUC oversight (<i>Guide, p 15</i>)	X				
2. Disaster Planning and Emergency Preparedness ^{NEW}	A*	M	S	C	NA
• Disaster plans for each facility to include satellite locations are in place (<i>Guide, p 35, p 75</i>) [must]	X				
• Plans include provisions for euthanasia (<i>Guide, p 35</i>) [must]	X				
• Plans include triage plans to meet institutional and investigators' needs (<i>Guide, p 35</i>)	X				
• Plans define actions to prevent animal injury or death due to HVAC or other failures (<i>Guide, p 35</i>)	X				
• Plans describe preservation of critical or irreplaceable animals (<i>Guide, p 35</i>)	X				
• Plans include essential personnel and their training (<i>Guide, p 35</i>)	X				
• Animal facility plans are approved by the institution and incorporated into overall response plan (<i>Guide, p 35</i>)	X				
• Law enforcement and emergency personnel are provided a copy and integration with overall plan is in place (<i>Guide, p 35</i>)	X				
3. IACUC ^{NEW}	A*	M	S	C	NA
• Meets as necessary to fulfill responsibilities (<i>Guide, p 25</i>) [must]	X				
• IACUC Members named in protocols or with conflicts recuse themselves from protocol decisions (<i>Guide, p 26</i>) [must]	X				
• Continuing IACUC oversight after initial protocol approval is in place (<i>Guide, p 33</i>)	X				
• IACUC evaluates the effectiveness of training programs (<i>Guide, p 15</i>)	X				
4. IACUC Protocol Review - Special Considerations	A*	M	S	C	NA
• Humane endpoints are established for studies that involve tumor models, infectious diseases, vaccine challenge, pain modeling, trauma, production of monoclonal antibodies, assessment of toxicologic effects, organ or system failure, and models of cardiovascular shock (<i>Guide, p 27</i>)	X				
• For pilot studies, a system to communicate with the IACUC is in place (<i>Guide, p 28</i>)	X				
• For genetically modified animals, enhanced monitoring and reporting is in place (<i>Guide, p 28</i>)	X				
• Restraint devices are justified in the animal use protocols (<i>Guide, p 29</i>) [must]	X				
• Alternatives to physical restraint are considered (<i>Guide, p 29</i>)	X				
• Period of restraint is the minimum to meet scientific objectives (<i>Guide, p 29</i>)	X				
• Training of animals to adapt to restraint is provided (<i>Guide, p 29</i>)	X				
• Animals that fail to adapt are removed from study (<i>Guide, p 29</i>)	X				

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• Appropriate observation intervals of restrained animals are provided (<i>Guide, p 29</i>)	X				
• Veterinary care is provided if lesions or illness result from restraint (<i>Guide, p 30</i>) [must]	X				
• Explanations of purpose and duration of restraint are provided to study personnel (<i>Guide, p 30</i>)	X				
• Multiple surgical procedures on a single animal are justified and outcomes evaluated (<i>Guide, p 30</i>)	X				
• Major versus minor surgical procedures are evaluated on a case-by-case basis (<i>Guide, p 30</i>)	X				
• Multiple survival procedure justifications in non-regulated species conform to regulated species standards (<i>Guide, p 30</i>)	X				
• Animals on food/fluid restriction are monitored to ensure nutritional needs are met (<i>Guide, p 31</i>)	X				
• Body weights for food/fluid restricted animals are recorded at least weekly (<i>Guide, p 31</i>)	X				
• Daily written records are maintained for food/fluid restricted animals (<i>Guide, p 31</i>)	X				
• Pharmaceutical grade chemicals are used , when available, for animal-related procedures (<i>Guide, p 31</i>)	X				
• Non-pharmaceutical grade chemicals are described, justified, and approved by IACUC (<i>Guide, p 31</i>)	X				
• Investigators conducting field studies know zoonotic diseases, safety issues, laws and regulations applicable in study area (<i>Guide, p 32</i>)	X				
• Disposition plans are considered for species removed from the wild (<i>Guide, p 32</i>)	X				
• Toe-clipping only used when no alternative, performed aseptically and with pain relief (<i>Guide, p 75</i>)	X				

5. IACUC Membership and Functions **A* M S C NA**

• IACUC is comprised of at least 5 members, appointed by CEO (PHS Policy, IV.A.3.)	X				
• Members include a veterinarian, a scientist, a nonscientist, and a nonaffiliated non-lab animal user (<i>Guide, p 24</i>) ⁱⁱ	X				
• IACUC authority and resources for oversight and evaluation of institution's program are provided (<i>Guide, p 14</i>)	X				
• IACUC conducts semiannual evaluations of institutional animal care and use program (PHS Policy, IV.B.)	X				
• Conducts semiannual inspections of institutional animal facilities (PHS Policy, IV.B.)	X				
• IACUC organizationally reports to the Institutional Official (PHS Policy, IV.A.1.b.)	X				
• Methods for reporting and investigating animal welfare concerns are in place (<i>Guide, p 23</i>) [must]	X				
• Reviews and investigates concerns about animal care and use at institution ⁱⁱⁱ (PHS Policy, IV.B.)	X				
• Procedures are in place for review, approval, and suspension of animal activities ^{iv} (PHS Policy, IV.B.)	X				
• Procedures are in place for review and approval of significant changes to approved activities (PHS Policy, IV.B.)	X				
• Policies are in place for special procedures (e.g., genetically modified animals, restraint, multiple survival surgery, food and fluid regulation, field investigations, agricultural animals) (<i>Guide, p 27-32</i>)	X				
• Requests for exemptions from major survival surgical procedure restrictions are made to USDA/APHIS ^v (<i>Guide, p 30</i>) [must]	X				

6. IACUC Training NEW **A* M S C NA**

• All IACUC members should receive:					
o Formal orientation to institution's program (<i>Guide, p 17</i>)	X				
o Training on legislation, regulations, guidelines, and policies (<i>Guide, p 17</i>)	X				
o Training on how to inspect facilities and labs where animal use or housing occurs (<i>Guide, p 17</i>)	X				
o Training on how to review protocols as well as evaluate the program (<i>Guide, p 17</i>)	X				
o Ongoing training/education (<i>Guide, p 17</i>)	X				

7. IACUC Records and Reporting Requirements^{vi} **A* M S C NA**

ATTACHMENT II

• Semiannual report to the IO (PHS Policy, IV.B.)					
○ Submitted to IO every 6 months	X				
○ Compiles program review and facility inspection(s) results (includes all program and facility deficiencies)	X				
○ Includes minority IACUC views	X				
○ Describes IACUC-approved departures from the <i>Guide</i> or PHS Policy and the reasons for each departure ^{vii}	X				
○ Distinguishes significant from minor deficiencies	X				
○ Includes a plan and schedule for correction for each deficiency identified ^{viii}	X				
• Reports to OLAW (PHS Policy, IV.F.)					
○ Annual report to OLAW documents program changes, dates of the semiannual program reviews and facility inspections and includes any minority views	X				
○ Promptly advises OLAW of serious/ongoing <i>Guide</i> deviations or PHS Policy noncompliance (NOT-OD-05-034)	X				
○ Institute must promptly advise OLAW of any suspension of an animal activity by the IACUC (NOT-OD-05-034)	X				
• Reports to U.S. Department of Agriculture (USDA) or Federal funding agency ^{ix}					
○ Annual report to USDA contains required information including all exceptions/exemptions	X				
○ Reporting mechanism to USDA is in place for IACUC-approved exceptions to the regulations and standards	X				
○ Reports are filed within 15 days for failures to adhere to timetable for correction of significant deficiencies	X				
○ Promptly reports suspensions of activities by the IACUC to USDA and any Federal funding agency	X				
• Records (PHS Policy, IV.E.)					
○ IACUC meeting minutes and semiannual reports to the IO are maintained for 3 years	X				
○ Records of IACUC reviews of animal activities include all required information ^x	X				
○ Records of IACUC reviews are maintained for 3 years after the completion of the study	X				

8. Veterinary Care (See also next section - Veterinary Care) **A* M S C NA**

• An arrangement for veterinarian(s) with training or experience in lab animal medicine is in place including backup veterinary care ^{xi}	X				
• Veterinary access to all animals is provided (<i>Guide</i> , p 14) [must]	X				
• Direct or delegated authority is given to the veterinarian to oversee all aspects of animal care and use (<i>Guide</i> , p 14) [must]	X				
• Veterinarian provides consultation when pain and distress exceeds anticipated level in protocol (<i>Guide</i> , p 5) [must]	X				
• Veterinarian provides consultation when interventional control is not possible (<i>Guide</i> , p 5) [must]	X				
• If part time /consulting veterinarian, visits meet programmatic needs (<i>Guide</i> , p 14)	X				
• Regular communication occurs between veterinarian and IACUC (<i>Guide</i> , p 14)	X				
• Veterinarian(s) have experience and training in species used (<i>Guide</i> , p 15) [must]	X				
• Veterinarian(s) have experience in facility administration/management (<i>Guide</i> , p 15)	X				

9. Personnel Qualifications and Training **A* M S C NA**

• All personnel are adequately educated, trained, and/or qualified in basic principles of laboratory animal science. Personnel included: [must]					
○ Veterinary/other professional staff (<i>Guide</i> , p 15-16)	X				
○ IACUC members (<i>Guide</i> , p 17)	X				
○ Animal care personnel (<i>Guide</i> , p 16)	X				
○ Research investigators, instructors, technicians, trainees, and students (<i>Guide</i> , pp 16-17)	X				
• Continuing education for program and research staff provided to ensure high quality care and reinforce training (<i>Guide</i> , pp 16-17)	X				
• Training is available prior to starting animal activity (<i>Guide</i> , p 17)	X				
• Training is documented (<i>Guide</i> , p 15)	X				

ATTACHMENT II

• Training program content includes: (<i>Guide, p 17</i>)					
○ Methods for reporting concerns (<i>Guide, p 17</i>)	X				
○ Humane practices of animal care (e.g., housing, husbandry, handling) ^{xii}	X				
○ Humane practices of animal use (e.g., research procedures, use of anesthesia, pre- and post-operative care, aseptic surgical techniques and euthanasia (<i>Guide, p 17</i>) ^{xiii}					
○ Research/testing methods that minimize numbers necessary to obtain valid results (PHS Policy, <i>IV.A.1.g.</i>)	X				
○ Research/testing methods that minimize animal pain or distress (PHS Policy, <i>IV.A.1.g.</i>)	X				
○ Use of hazardous agents, including access to OSHA chemical hazard notices where applicable (<i>Guide, p 20</i>)	X				
○ Animal care and use legislation (<i>Guide, p 17</i>)	X				
○ IACUC function (<i>Guide, p 17</i>)	X				
○ Ethics of animal use and Three R's (<i>Guide, p 17</i>)	X				
10. Occupational Health and Safety of Personnel	A*	M	S	C	NA
• Program is in place and is consistent with federal, state, and local regulations (<i>Guide, p 17</i>) [must]	X				
• Program covers <i>all</i> personnel who work in laboratory animal facilities (<i>Guide, p 18</i>)	X				
• Changing, washing, and showering facilities are available as appropriate (<i>Guide, p 19</i>)	X				
• Hazardous facilities are separated from other areas and identified as limited access (<i>Guide, p 19</i>)	X				
• Personnel training is provided based on risk (e.g., zoonoses, hazards, personal hygiene, special precautions, animal allergies) (<i>Guide, p 20</i>)	X				
• Personal hygiene procedures are in place (e.g., work clothing, eating/drinking/smoking policies) (<i>Guide, p 20</i>)	X				
• Procedures for use, storage, and disposal of hazardous biologic, chemical, and physical agents are in place (<i>Guide, p 21</i>)	X				
• Personal Protective Equipment for the work area is appropriate and available (<i>Guide, p 21</i>)	X				
• Program for medical evaluation and preventive medicine for personnel includes:					
○ Pre-employment evaluation including health history (<i>Guide, p 22</i>)	X				
○ Immunizations as appropriate (e.g., rabies, tetanus) and tests as appropriate (<i>Guide, p 22</i>)	X				
○ Zoonosis surveillance as appropriate (e.g., Q-fever, tularemia, Hantavirus, plague) (<i>Guide, p 23</i>)	X				
○ Procedures for reporting and treating injuries, including accidents, bites, allergies, etc. (<i>Guide, p 23</i>)	X				
○ Promotes early diagnosis of allergies including preexisting conditions (<i>Guide, p 22</i>)	X				
○ Considers confidentiality and other legal factors as required by federal, state and local regulations (<i>Guide, p 22</i>) [must]	X				
○ If serum samples are collected, the purpose is consistent with federal and state laws (<i>Guide, p 22</i>) [must]	X				
• Waste anesthetic gases are scavenged (<i>Guide, p 21</i>)	X				
• Hearing protection is provided in high noise areas (<i>Guide, p 22</i>)	X				
• Respiratory protection is available when performing airborne particulate work (<i>Guide, p 22</i>)	X				
• Special precautions for personnel who work with nonhuman primates, their tissues or body fluids include:					
○ Tuberculosis screening provided for all exposed personnel (<i>Guide, p 23</i>)	X				
○ Training and implementation of procedures for bites, scratches, or injuries associated with macaques (<i>Guide, p 23</i>)	X				
○ PPE is provided including gloves, arm protection, face masks, face shields, or goggles (<i>Guide, p 21</i>)	X				
○ Injuries associated with macaques are carefully evaluated and treatment implemented (<i>Guide, p 23</i>)	X				
• Occupational safety and health of field studies is reviewed by OSH committee or office	X				

ATTACHMENT II

(Guide, p 32)						
11. Personnel Security NEW		A*	M	S	C	NA
<ul style="list-style-type: none"> Preventive measures in place include pre-employment screening, and physical and IT security (Guide, p 23) 	X					
12. Investigating & Reporting Animal Welfare Concerns NEW		A*	M	S	C	NA
<ul style="list-style-type: none"> Methods for investigating and reporting animal welfare concerns are established (Guide, p 23) [must] 	X					
<ul style="list-style-type: none"> Reported concerns and corrective actions are documented (Guide, p 24) 	X					
<ul style="list-style-type: none"> Mechanisms for reporting concerns are posted in facility and at applicable website with instructions (Guide, p 24) <ul style="list-style-type: none"> Includes multiple contacts (Guide, p 24) Includes anonymity, whistle blower policy, nondiscrimination and reprisal protection (Guide, p 24) 	X					

- * **A** = acceptable
M = minor deficiency
S = significant deficiency (is or may be a threat to animal health or safety)
C = change in program (PHS Policy [IV.A.1.a.-i.](#)) (include in semiannual report to IO and in annual report to OLAW)
NA = not applicable

Veterinary Care

Date:

1. Clinical Care and Management ^{NEW}	A*	M	S	C	NA
• Veterinary program offers high quality of care and ethical standards (<i>Guide, p 105</i>) [must]	X				
• Veterinarian provides guidance to all personnel to ensure appropriate husbandry, handling, treatment, anesthesia, analgesia, and euthanasia (<i>Guide, p 106</i>)	X				
• Veterinarian provides oversight to surgery and perioperative care (<i>Guide, p 106</i>)	X				
• Veterinary care program is appropriate for program requirements (<i>Guide, pp 113-114</i>)	X				
• Veterinarian(s) is familiar with species and use of animals and has access to medical and experimental treatment records (<i>Guide, p 114</i>)	X				
• Procedures to triage and prioritize incident reports are in place (<i>Guide, p 114</i>)	X				
• Procedures are in place to address:					
o Problems with experiments to determine course of treatment in consultation with investigator(<i>Guide, p 114</i>)	X				
o Recurrent or significant health problems with the IACUC and documentation of treatments and outcomes (<i>Guide, p 114</i>)	X				
o Veterinary review and oversight of medical and animal use records (<i>Guide, p 115</i>)	X				
• Procedures established for timely reporting of animal injury, illness, or disease (<i>Guide, p 114</i>) [must]	X				
• Procedures established for veterinary assessment, treatment, or euthanasia (<i>Guide, p 114</i>) [must]	X				
• Veterinarian is authorized to treat, relieve pain, and/or euthanize (<i>Guide, p 114</i>) [must]	X				

2. Animal Procurement and Transportation/Preventive Medicine	A*	M	S	C	NA
• Procedures for lawful animal procurement are in place (<i>Guide, p 106</i>) [must]	X				
• Sufficient facilities and expertise are confirmed prior to procurement (<i>Guide, p 106</i>)	X				
• Procurement is linked to IACUC review and approval (<i>Guide, p 106</i>)	X				
• Random source dogs and cats are inspected for identification (<i>Guide, p 106</i>)	X				
• Population status of wildlife species is considered prior to procurement (<i>Guide, p 106</i>)	X				
• Appropriate records are maintained on animal acquisition (<i>Guide, p 106</i>)	X				
• Animal vendors are evaluated to meet program needs and quality (<i>Guide, p 106</i>)	X				
• Breeding colonies are based on need and managed to minimize numbers (<i>Guide, p 107</i>)	X				
• Procedures for compliance with animal transportation regulations, including international requirements, are in place (<i>Guide, p 107</i>) [must]	X				
• Transportation is planned to ensure safety, security and minimize risk (<i>Guide, p 107</i>)	X				
• Movement of animals is planned to minimize transit time and deliveries are planned to ensure receiving personnel are available (<i>Guide, pp 107- 108</i>)	X **see notes				
• Appropriate loading and unloading facilities are available (<i>Guide, p 109</i>)	X				
• Environment at receiving site is appropriate (<i>Guide, p 109</i>)	X				
• Policies in place on separation by species, source, and health status (<i>Guide, pp 109, 111-112</i>)	X				
• Procedures in place for quarantine to include zoonoses prevention (<i>Guide, p 110</i>)	X				
• Quarantined animals from different shipments are handled separately or physically separated (<i>Guide, p 110</i>)	X				
• Procedures in place for stabilization/acclimation (<i>Guide, pp 110-111</i>)	X				
• Policies in place for isolation of sick animals (<i>Guide, p 112</i>)	X				
• Program is in place for surveillance, diagnosis, treatment and control of disease to include daily observation (<i>Guide, p 112</i>)	X				
• Diagnostic resources are available for preventive health program (<i>Guide, p 112</i>)	X				

3. Surgery	A*	M	S	C	NA
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ATTACHMENT II

• Surgical outcomes are assessed and corrective changes instituted (<i>Guide, p 115</i>)	X				
• Researchers have appropriate training to ensure good technique (<i>Guide, p 115</i>) [must]	X				
• Pre-surgical plans are developed and include veterinary input (e.g., location, supplies, anesthetic and analgesic use, peri-operative care, recordkeeping) (<i>Guide, p 116</i>)	X				
• Aseptic surgery is conducted in dedicated facilities or spaces, unless exception justified and IACUC approved (<i>Guide, p 116</i>)	X				
• Surgical procedures including laparoscopic procedures are categorized as major or minor (<i>Guide, pp 117-118</i>)	X				
• For nonsurvival surgery, the site is clipped, gloves are worn and instruments and area are clean (<i>Guide, p 118</i>)	X				
• Aseptic technique is followed for survival surgical procedures (<i>Guide, pp 118-119</i>)	X				
• Effective procedures for sterilizing instruments and monitoring expiration dates on sterile packs are in place (<i>Guide, p 119</i>)	X				
• Procedures for monitoring surgical anesthesia and analgesia are in place (<i>Guide, p 119</i>)	X				
• For aquatic species, skin surfaces are kept moist during surgical procedures (<i>Guide, p 119</i>)	X				
• 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, pp 119-120</i>)	X				

4. Pain, Distress, Anesthesia and Analgesia A* M S C NA

• Guidelines for assessment and categorization of pain, distress and animal wellbeing are provided during training (<i>Guide, p 121</i>)	X				
• Selection of analgesics and anesthetics is based on professional veterinary judgment (<i>Guide, p 121</i>)	X				
• Painful procedures are monitored to ensure appropriate analgesic management (<i>Guide, p 122</i>)	X				
• Nonpharmacologic control of pain is considered as an element of postprocedural care (<i>Guide, p 122</i>)	X				
• Procedures are in place to assure antinociception before surgery begins (<i>Guide, p 122</i>) [must]	X				
• Guidelines for selection and use of analgesics and anesthetics are in place and regularly reviewed and updated (<i>Guide, p 122</i>)	X				
• Special precautions for the use of paralytics are in place to ensure anesthesia ^{xiv} (<i>Guide, p 123</i>)	X				

5. Euthanasia A* M S C NA

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

6. Drug Storage and Control A* M S C NA

• Program complies with federal regulations for human and veterinary drugs(<i>Guide, p 115</i>) [must]	X				
• Drug records and storage procedures are reviewed during facility inspections (<i>Guide, p 115</i>)	X				
• Procedures are in place to ensure analgesics and anesthetics are used within expiration date (<i>Guide, p 122</i>) [must]	X				
• Anesthetics and analgesics are acquired, stored, and their use and disposal are recorded legally and safely (<i>Guide, p 122</i>)	X				

* A = acceptable
M = minor deficiency
S = significant deficiency (is or may be a threat to animal health or safety)

C = change in program (PHS Policy [IV.A.1.a.-i.](#)) (include in semiannual report to IO and in annual report to OLAW)
 NA = not applicable

NOTES: The IACUC noted that a more formal process for documenting approvals of incoming animals should be established when livestock/non-traditional species are brought in for research purposes. Although informal processes exist, these usually rely on the PI establishing contact via or phone, and no prescriptive requirements (i.e., required timeframe for notice, uniform documentation) are in place.

ⁱ The PHS Policy requires that Assured institutions comply with the regulations (9 CFR, Subchapter A) issued by the U.S. Department of Agriculture (USDA) under the Animal Welfare Act, as applicable. The endnotes below are specific USDA regulatory requirements that differ from or are in addition to the PHS Policy. This list is not intended to be all inclusive. For additional information please refer to 9 CFR Subchapter A - Animal Welfare.

ⁱⁱ Part 2 Subpart C - Research Facilities

- 2.31(b)(2) - “The Committee shall be composed of a Chairman and at least two additional members;... at least one shall not be affiliated in any way with the facility...such person will provide representation for general community interests in the proper care and treatment of animals.” [PHS policy requires 5 members]

ⁱⁱⁱ 2.32(c)(4) - “...No facility employee, Committee member, or laboratory personnel shall be discriminated against or be subject to any reprisal for reporting violations of any regulation or standards under the Act.” [USDA requirement additional to PHS Policy]

^{iv} 2.31(d)(5) - “...shall conduct continuing reviews of activities...not less than annually.” [PHS Policy requires a complete new review every 3 years utilizing all the criteria for initial review]

^v 2.31(d)(1)(x) - “...no animal will be used in more than one major operative procedure from which it is allowed to recover unless...(it is) justified for scientific reasons...(or is) required as routine veterinary procedure...or other special circumstances as determined by the Administrator on an individual basis.” [this last point is an additional USDA justification for multiple survival surgeries]

^{vi} 2.36 - “...each reporting facility shall submit an annual report to the APHIS, AC sector supervisor for the State where the facility is located on or before December 1 of each calendar year.” [The USDA annual report has a list of requirements which differ from PHS annual report]

^{vii} 2.36(b)(3) - “...exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the IACUC. A summary of all such exceptions must be attached to the facility’s annual report.” [Refers to USDA annual report]

^{viii} 2.31(c)(3) - “...Any failure to adhere to the plan and schedule that results in a significant deficiency remaining uncorrected shall be reported in writing within 15 business days by the IACUC, through the institutional official, to APHIS and any Federal agency funding that activity.” [PHS Policy requires prompt reporting to OPRR of serious or continuing noncompliance with the PHS Policy or serious deviations from the provisions of the *Guide*]

^{ix} 2.36 - “...each reporting facility shall submit an annual report to the APHIS, AC sector supervisor for the State where the facility is located on or before December 1 of each calendar year.” [The USDA annual report has a list of requirements which differ from PHS annual report]

^x In addition to PHS requirements for IACUC review/application for funding, USDA regulations require:

2.31(d)(1)(ii) - “The principal investigator (PI) consider alternatives to procedures that cause more than momentary or slight pain or distress to the animals, and has provided a written narrative description of the methods and sources...used to determine that alternatives were not available.”

2.31(d)(1)(iii) - “The PI has provided written assurance that the activities do not unnecessarily duplicate previous experiments.”

2.31(d)(1)(iv) - “Procedures that may cause more than momentary or slight pain or distress to the animals will:
- involve in their planning, consultation with the attending veterinarian or his or her designee; [PHS Policy does not specify veterinary consultation]
- not include paralytics without the use of anesthesia;”

2.31(d)(1)(x) - “No animal will be used in more than one major operative procedure from which it is allowed to recover, unless justified for scientific reasons by the principal investigator, in writing...”

^{xi} 2.33(a)(1) - “In the case of a part-time attending veterinarian or consultant arrangements, the formal arrangements shall include a written program of veterinary care and regularly scheduled visits to the research facility.” [USDA requirement additional]

^{xii} 2.32(c) - “Humane methods of animal maintenance and experimentation, including the basic needs of each species, proper handling and care for the various species of animals used by the facility, proper pre-procedural and post-procedural care of animals, and aseptic surgical methods and procedures.”

^{xiii} 2.32(c) - additional specifications include:

- “proper use of anesthetics, analgesics, and tranquilizers for any species of animals used by the facility”
- “methods whereby deficiencies in animal care and treatment are reported, including deficiencies in animal care and treatment reported by any employee of the facility...”
- “utilization of services (e.g., National Agricultural Library, National Library of Medicine) to provide information on appropriate animal care and use, alternatives to the use of live animals in research , that could prevent unintended and unnecessary duplication of research involving animals, and regarding the intent and requirements of the Act.” [USDA training specifications are more detailed than PHS Policy].

^{xiv} 2.31(d)(iv)(C) - “Procedures that may cause more than momentary or slight pain or distress to the animals will...not include the use of paralytics without anesthesia.”

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							

IACUC Semiannual Facilities Inspection Report

Attachment III

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
							A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency		
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
				X			Pens 16 & 17 records not dated correctly (started on 1st of month, received birds on 14th). Pen 15 dates written in and was correct. Nipple drinkers should probably be raised up.	(1) Immediately ensure documentation is corrected for accuracy. (2) Immediately ensure drinkers are raised as needed.	1. Resolved 11/24. 2) Resolved 11/24 The water lines were raised.	
			X							

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable	S=Significant Deficiency	
								M=Minor Deficiency	R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
			X							
			X							
			X							
			X							
			X							
			X							
				X			Note: Project expires end of this month; unlabeled sample	Immediately ensure all samples and secondary containers are appropriately labelled.	Resolved 11/24	
			X							
				X			Needs cleaning	Please perform general housekeeping in this area no later than November 30.	Resolved 11/24	
			X							
			X							
			X							
			X							
			X							
				X			Stored material against wall	Immediately ensure there is at least 6" of clearance between feed and walls.	Resolved 11/24	

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
			X							
			X							
			X							
			X							
			X							
			X				Overhead door broken off rail in hay storage area. Work order already placed.	Please provide WO number.	Response received 11/24: WO# 201019-188955 to repair the overhead door has been completed. CRU also had 4 new overhead doors installed.	
				X			2 bird nests	Please remove these nests immediately.	Response received 11/24: WO# 201116-192764-001 to remove the 2 birds nest has been completed.	
			X							
			X							
			X							

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
				X			Eye wash bottle leaking	Please ensure there is a functioning eyewash in this space prior to next use. A disposable eyewash could be used.	Replaced with a large tank eyewash system on 11/6/2020.	
				X			Door in aisle ripped off hinges	Repair or replace door no later than November 30, 2020.	Repaired 10/24	
			X							
				X			Sharps full, needs removal. Research cart soiled & needs cleaning	(1) Immediately replace sharps container (2) Surfaces, like the cart, should be cleaned after use. Please institute this practice immediately.	Response received 11/24: Corrected.	
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:							
Last Inspection Date: August 2020 (COVID Delay)									
							A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected
			X						
			X						
			X						
			X						
			X						
			X						
			X						
				X			Insulation coming down	The IACUC understands that this area is being considered as part of a larger project to address ceilings throughout the ANSCI units. Staff report that any insulation that falls to the ground is removed from animal areas immediately upon discovery. Please provide an update on the status of the project request form no later than November 30, 2020.	Response received 10/24: L [redacted] verhead: We will patch and repair existing insulation and netting in [redacted] The Capital Projects & Space Review Committee agreed to have Facilities Operations patch and repair and to postpone a larger project because funds are limited. [redacted] and I toured the
			X						

IACUC Semiannual Facilities Inspection Report

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Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable	S=Significant Deficiency	
								M=Minor Deficiency	R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
			X							
			X							
			X							
			X							
			X							
			X							
				X			Fence around tree in "back 40" needs repair. Tree really should be removed and then fence removed	Fence should be removed or repaired prior to animals being put out into this pasture.	Response received 11/24: Fence has been removed. An abortist is working on having the tree removed.	
			X							
			X							
			X							

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
			X							
				X			Wet shavings should be removed	Please clean trailers after use and document in the trailer log.	Resolved 11/24	
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:							
Last Inspection Date: August 2020 (COVID Delay)									
							A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
				X			Expired bottle of Poviderm [redacted], noted as expired. Should be removed.	Discard expired items immediately.	Response received 12/1 Resolved	
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
				X			Expired lidocaine [redacted]. Told the postdoc [redacted] about it, she said it would be removed.	Discard expired items immediately.	Response received 12/1 Resolved	

IACUC Semiannual Facilities Inspection Report

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Last Inspection Date: August 2020 (COVID Delay)									
							A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
				X			One ceiling light bulb out; [REDACTED] says work order is already in.	Correction already in process.	Response received 12/1 Resolved
			X						
			X						
			X						
			X						
			X						
				X			Ceiling light dim, should be changed out.	Replace within 2 weeks.	Response received 12/1 Resolved
			X						
			X						

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
			X							
			X							
			X							
			X							
			X							
			X							
			F		X		Eye wash not flushed week of 10/5	Eyewashes should be checked/documentated weekly. Please institute this practice immediately.	Response received 12/1 Resolved	
			F		X		Eye wash not flushed week of 10/5	Eyewashes should be checked/documentated weekly. Please institute this practice immediately.	Response received 12/1 Resolved	
			F		X		Eye wash not flushed week of 10/5	Eyewashes should be checked/documentated weekly. Please institute this practice immediately.	Response received 12/1 Resolved	
			X							
			X							
			X							
			X							
			X							
			X							

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
							NOT IN USE			
			X							
			X							
			X				NOT USED WITH LIVE ANIMALS			
			X							
			X							
				X			eye wash not checked last few weeks	Eyewashes should be checked/documented weekly. Please institute this practice immediately.	PI response 11/16/2020, practice instituted. Resolved.	

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
				X			eye wash not checked last four weeks	Eyewashes should be checked/documented weekly. Please institute this practice immediately.	PI response 11/13/2020, practice instituted. Resolved.	
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
							NOT IN USE			
			X							
			X							

IACUC Semiannual Facilities Inspection Report

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Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
			X							
			X							
			X							
			X							
							NOT IN USE			
							NOT IN USE			
			X							
							NOT IN USE			
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							
			X							

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:							
Last Inspection Date: August 2020 (COVID Delay)									
							A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected
			X						
							NOT IN USE		
			X						
			X						
			X						
				X			expired material in first aid kit, tossed during inspection		Resolved during inspection
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:							
Last Inspection Date: August 2020 (COVID Delay)									
							A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
			X						
				X			Rodent chow in container from vivarium. Need mill date on feed stored - please label.	Secondary containers of animal feed should be labeled with mill date and/or expiration date. Please institute this practice immediately.	
			X						
				X			Eyewash needs to be checked weekly	Eyewashes should be checked/documented weekly. Please institute this practice immediately.	PI Resolved during inspection.

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
				X			Eyewash needs to be checked weekly	Eyewashes should be checked/documented weekly. Please institute this practice immediately.	PI Resolved during inspection.	
				X			Eyewash needs to be checked weekly	Eyewashes should be checked/documented weekly. Please institute this practice immediately.	PI Resolved during inspection.	
				X			Eyewash needs to be checked weekly	Eyewashes should be checked/documented weekly. Please institute this practice immediately.	PI Resolved during inspection.	
				X			Eyewash needs to be checked weekly	Eyewashes should be checked/documented weekly. Please institute this practice immediately.	PI Resolved during inspection.	
				X			Eyewash needs to be checked weekly	Eyewashes should be checked/documented weekly. Please institute this practice immediately.	PI Resolved during inspection.	
				X			Eyewash needs to be checked weekly	Eyewashes should be checked/documented weekly. Please institute this practice immediately.	PI Resolved during inspection.	
			X							
			X							
			X							
			X							
			X							

IACUC Semiannual Facilities Inspection Report

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
				X			No eyewash flush log; [redacted] will send to PI	Eyewashes should be checked/documented weekly. Please institute this practice immediately.	PI response 11/13/2020, practice instituted. Resolved.	
			X							
				X			expired eyewash bottle	Replace immediately.	PI response 11/13/2020, replaced. Resolved.	
				X			clean tables after use	Please institute this practice immediately. All surfaces in animal housing areas should be cleaned after use.		
			X							
			X							
			X							
			X							
			X							

IACUC Semiannual Facilities Inspection Report

Attachment III

Inspection Date: October 2020		Comment:								
Last Inspection Date: August 2020 (COVID Delay)										
								A=Acceptable M=Minor Deficiency	S=Significant Deficiency R=Repeat Deficiency	
Location	Room or Description	Inspection Team	A	M	S	R	Comments/Deficiency	Correction/Deadline	Date Corrected	
			X							
				X			Dead bugs on floor	Ensure this area is cleaned within 2 weeks or sooner if needed for animal use.	ACS response 11/16/2020. Insect traps placed and area cleaned. Resolved.	
			X							
							NOT IN USE AT THIS TIME			