United States Department of Agriculture
Animal and Plant Health Inspection Service

JRUBIN
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Inspection Report

UNIVERSITY OF MARYLAND BALTIMORE

10 S. PINE ST. RM G-100, MSTF BLDG. UMAB

BALTIMORE, MD 21201

Customer ID: **89**
Certificate: **51-R-0018**
Site: 001
VETERINARY RESOURCES

Type: ROUTINE INSPECTION
Date: Jul-06-2009

2.31 (c) (7)

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC).

Section 2.31(c) IACUC Functions. (7) Review and approve, require modifications in (to secure approval), or withhold approval of proposed significant changes regarding the care and use of animals in ongoing activities.

1. Review of Animal Use Protocol 0309017 that described the management of a diabetic model involving baboons: The proposal stated that an intravenous glucose tolerance test (IVGTT) will be conducted following induction of diabetes. The records for baboon #18667, #H018, indicated that a baseline IVGTT was conducted before induction of diabetes which was neither described in the proposal nor otherwise approved by the Institutional Animal Care and Use Committee. At the time the procedures were conducted, an amendment with a description for the addition of a baseline IVGTT had been deferred pending further review by the Committee.

The Institutional Animal Care and Use Committee (IACUC) should ensure that a proposal to change an ongoing animal activity is submitted for review and approval before any proposed changes are conducted.

Correct by: Future proposed change to the ongoing animal activity.

2.33 (b) (2)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE.

Section 2.33(b) Each research facility shall establish and maintain programs of adequate veterinary care that include: (2) The use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries.

1. Expired drugs in the research facility.
a. Medical School Teaching Facility, surgical supply room G-08, refrigerator/supply area: Carprofen (Rimadyl) injection, 50 mg/ml, 20 ml vial, lot #P6801042USA, expired 5/2009 (1); Dopamine hydrochloride injection, 200 mg/ml, 5 ml vial, lot #6394, expired 5/2009 (2).
b. Bressler Research Building, treatment room 6-052, wall cabinet: Yohimbine (Yobine) injection, 2 mg/ml, 20 ml vial, lot #LA166606, expired 6/2009 (1).

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The use of expired drugs, fluids, and medical materials is not considered to be acceptable veterinary practice and may adversely affect animal treatment.

Correct by: Expired drugs removed for disposal at time of inspection.

Note: This inspection was conducted on July 6-July 8, 2009.

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Inspection Report

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10 S. PINE ST. RM G-100, MSTF BLDG. UMAB

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Date: Jun-09-2008

BALTIMORE, MD 21201

2.31 (c) (7)
INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC).

2.31 (d) (1) (ii)
INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC).

Section 2.31(c) IACUC Functions. (7) Review and approve, require modifications in (to secure approval), or withhold approval of proposed significant changes regarding the care and use of animals in ongoing activities.

Section 2.31(d) IACUC review of activities involving animals. (1) In order to approve proposed activities or proposed significant changes in ongoing activities. . . .The IACUC shall determine that the proposed activities or significant changes in ongoing activities meet the following requirements: (ii) The principal investigator has considered alternatives to procedures that may cause more than momentary or slight pain or distress to the animals, and has provided a written narrative description of the methods and sources, e. g., the Animal Welfare Information Center, used to determine that alternatives were not available.

1. Review of Animal Use Protocol 0506006 that described a cardiac/neurologic study involving dogs and one amendment.
a. The proposal did not describe a procedure for collection of cerebral spinal fluid. Cerebral spinal fluid was, however, collected from one dog prior to euthanasia, according to information reported by the registrant. At the time the cerebral spinal fluid was collected, the procedure was conducted without review and approval of the Institutional Animal Care and Use Committee. [Section 2.31(c)(7)]
b. The amendment described a procedure for collection of cerebral spinal fluid that may cause more than momentary or slight pain and/or distress to the animals. The amendment failed to document or provide evidence to determine that a search for alternative procedures was conducted and to determine that alternatives were not available. [Section 2.31(d)(1)(ii)]
2. Review of Animal Use Protocol 0705013 that described a reproductive study involving guinea pigs and one amendment: The proposal did not describe a procedure for collection of maternal blood samples. A maternal blood sample was collected, however, from one guinea pig prior to a hysterotomy, according to information reported by the

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registrant. At the time the blood sample was collected, the procedure was conducted without review and approval of the Institutional Animal Care and Use Committee. [Section 2.31(c)(7)]
The Institutional Animal Care and Use Committee (IACUC) should ensure that a proposal to change an ongoing animal activity is submitted for review before any proposed changes are conducted. The IACUC should ensure that a proposal or a significant change to an ongoing activity provides the required narrative description of the methods and sources used to consider alternatives to procedures that may cause more than momentary or slight pain and/or distress to the animals.

Correct by: Item 1.a., 2.> Proposed change reviewed/approved by IACUC. Item 1.b.> June 27, 2008.

2.32 (a)

PERSONNEL QUALIFICATIONS.

Section 2.32(a) It shall be the responsibility of the research facility to ensure that all scientists, research technicians, animal technicians, and other personnel involved in animal care, treatment, and use are qualified to perform their duties. This responsibility shall be fulfilled in part through the provision of training and instruction to those personnel.

1. Review of information reported by the registrant for Animal Use Protocol 0906013 that described a cardiovascular study involving sheep: As part of the registrant's monitoring program, the reviewer for the registrant observed the attempted insertion of a femoral arterial line as part of a survival surgical procedure. The depth of anesthesia during placement of the arterial line was reported to be light, requiring administration of supplemental anesthesia. Instead, while a member of the research staff continued to attempt placement of the arterial line, another member administered succinylcholine, a neuromuscular blocking agent. Several deficiencies regarding aseptic procedures, performance of surgical procedures, administration of supplemental anesthesia, and assessment of depth of anesthesia, were reported. The Institutional Animal Care and Use Committee concluded that the deficiencies were indicative of a lack of training.

In accordance with Animal Welfare Regulations, the research facility should ensure that personnel involved in animal care, use, and treatment, are appropriately trained and qualified to properly handle their duties.

Correct by: Research personnel were given further training.

2.33 (b) (2)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE.

Section 2.33(b) Each research facility shall establish and maintain programs of adequate veterinary care that include: (2) The use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries.

1. Medical School Teaching Facility, surgical facility intended for survival surgery, animal preparation room 6-046, cart: Five instrument packs were observed to be sealed with autoclave tape. Four instrument packs did not have a sterilization date. One instrument pack was dated January 4, 1989, indicating the instruments may have been last

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sterilized more than nineteen years ago.

Survival surgery should be performed using aseptic procedures, including sterile instruments and aseptic techniques. The use of instruments which may not be sterile is improper aseptic procedure which could cause postoperative infection, resulting in possible animal discomfort, pain and/or distress.

2. Expired drugs in the research facility. . Medical School Teaching Facility, sixth floor surgical facility, emergency drug box: Epinephrine injection, 1 mg/ml (1:1000), 1 ml ampule, lot #200378, expired 8/1/06 (2); Aminophylline injection, 25 mg/ml, 10 ml vial, lot #4095, expired 2/2007 (1); Furosemide injection 5%, 50 ml vial, lot #3091002, expired 9/2005 (1); Dexamethasone sodium phosphate injection, 10 mg/ml, 10 ml vial, lot #03K123, expired 8/2005 (2); Potassium chloride injection, 2 meq/ml, 20 ml vial, lot # 15-333-DK, expired 3/1/2006 (1); Sodium bicarbonate injection 7.5% (0.9 meq/ml), 50 ml vial, lot #1449, expired 7/2005 (1); Sodium chloride injection 0.9%, 10 ml vial, lot #20-317-DK, expired 8/1/2006 (1).

The use of expired drugs, fluids, and medical materials is not considered to be acceptable veterinary practice and may adversely affect animal treatment.

Correct by: Item 1> Instrument packs removed at time of inspection. Item 2> Expired drugs removed for disposal at time of inspection.

3.29 (a)

FEEDING.

Section 3.29(a) Guinea pigs and hamsters shall be fed each day except as otherwise might be required to provide adequate veterinary care. The food shall be free from contamination, wholesome, palatable and of sufficient quantity and nutritive value to meet the normal daily requirements for the condition and size of the guinea pig or hamster.

1. Medical School Teaching Facility, animal facility, animal room G-59, housing 17 guinea pigs: One bag of Guinea Pig Diet 7006, date of manufacture 10/25/07, exceeded the manufacture's recommended 6-month shelf life. This bag of food was used to feed the guinea pigs in the room.

Guinea pigs should be fed palatable, uncontaminated, and nutritionally adequate food within the recommended shelf life of the product to meet nutritional requirements.

Correct by: Food removed for disposal at time of inspection.

3.80 (a) (1)

PRIMARY ENCLOSURES.

Section 3.80 Primary enclosures for nonhuman primates must meet the following minimum requirements: (a) General requirements. (1) Primary enclosures must be designed and constructed of suitable materials so that they

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are structurally sound for the species of nonhuman primates contained in them. They must be kept in good repair.

1. Medical School Teaching Facility, animal facility, animal room G-14: The enclosure housing 1 cynomolgus monkey had a partially detached bar in the guillotine door.

Primary enclosures for nonhuman primates should be constructed and maintained in good repair.

Correct by: Enclosure replaced at time of site visit.

3.80 (b) (2) (i)

PRIMARY ENCLOSURES.

Section 3.80 Primary enclosures for nonhuman primates must meet the following minimum requirements: (b) Minimum space requirements. Primary enclosures must meet the minimum space requirements provided in this subpart. (2) On and after February 15, 1994: (i) The minimum space that must be provided to each nonhuman primate, whether housed individually or with other nonhuman primates, will be determined by the typical weight of animals of its species, except for brachiating species and great apes and will be calculated by using the following table:

Group¸Weight ¸Floor area/animal ¸Height
¸lbs. ¸(kg.) ¸ft.\2\ ¸(m \2\) ¸in. ¸(cm.)

3 ¸6.6-22.0 ¸(3-10) ¸4.3 ¸(0.40) ¸30 ¸(76.2)
4 ¸22.0-33.0 ¸(10-15) ¸6.0 ¸(0.56) ¸32 ¸(81.28)
5 ¸33.0-55.0 ¸(15-25) ¸8.0 ¸(0.74) ¸36 ¸(91.44)
6 ¸over 55.0 ¸(over 25) ¸25.1 ¸(2.33) ¸84 ¸(213.36)

1. Bressler Research Building: The required minimum floor space was not provided for the baboons identified below at the time of inspection. Exceptions were not in effect.
a. Animal room 6-018/022: Olive baboon #15, weighing 63.1 lbs. (28.7 kg), and olive baboon #16, weighing 70.4 lbs. (32.0 kg), were housed in enclosures with 17.0 sq. ft. of floor space, less than the required minimum floor space of 25.1 sq. ft.
b. Animal room 6-036/040: Olive baboon #12, weighing 80.5 lbs.(36.6 kg), was housed in an enlosure with 17.0 sq. ft. of floor space, less than the required minimum floor space of 25.1 sq. ft.

In accordance with Animal Welfare Regulations, nonhuman primates must be provided the required minimum floor space.

Correct by: October 31, 2008.

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3.81 (b)

ENVIRONMENT ENHANCEMENT TO PROMOTE PSYCHOLOGICAL WELL-BEING.

Section 3.81(b) Environmental enrichment. The physical environment in the primary enclosures must be enriched by providing means of expressing noninjurious species-typical activities. Species differences should be considered when determining the type or methods of enrichment. . . .Environmental enrichments include providing perches, swings, mirrors, and other increased cage complexities; providing objects to manipulate; varied food items; using foraging or task-oriented feeding methods.

1. The research facility plan to promote the psychological well-being of nonhuman primates stated that each primary enclosure will be provided a minimum of one enrichment item inside and two items outside the enclosure at all times.
a. Medical School Teaching Facility, ground floor: Two enclosures housing cynomolgus macaques were not provided an inside enrichment item. Exemptions were not in effect.
b. Medical School Teaching Facility, sixth floor: Six enclosures housing rhesus macaques were either not provided an inside enrichment item or only one of two outside enrichment items. Exemptions were not in effect.

Nonhuman primate enrichment should be provided as described in the plan for environment enhancement.

Correct by: Enrichment provided as described at time of site visit.

Note: This inspection was conducted on June 9-June 13, 2008

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Date: Feb-20-2007

2.33 (b) (2)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE.

Section 2.33(b) Each research facility shall establish and maintain programs of adequate veterinary care that include: (2) The use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries.

1. Medical School Teaching Facility, Animal Facility, animal room G-62: Dogs # CWUIAP, #CWUICJ, were observed to have dental plaque/calculus and signs of mild to moderate periodontal disease. Periodontal disease may cause discomfort and if not managed may lead to gingival recession/tooth loss or other disease.

Adequate veterinary care should include periodic dental care to prevent and/or to provide treatment for periodontal disease. Veterinary personnel should initiate dental care procedures
Correct by: March 2, 2007.

3.84 (c)

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

Section 3.84(c) Housekeeping for premises. Premises where housing facilities are located, including buildings and surrounding grounds, must be kept clean and in good repair in order to protect the nonhuman primates from injury, to facilitate the husbandry practices required in this subpart, and to reduce or eliminate breeding and living areas for rodents, pests, and vermin.

1. Bressler Research Building, Animal Facility, 6th floor entry corridor: Floor surface was damaged/deteriorated with exposed underlying concrete in the area near room 6-052.

Animal facilities should be maintained and kept in good repair to facilitate cleaning and sanitization, to reduce or eliminate entry and breeding of vermin, and to prevent further structural deterioration. Maintenance/repairs should be performed on a regular basis.

The facility should make the necessary repairs.
Correct by: March 23, 2007.

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Note: This inspection was conducted on February 20-February 21, 2007 and focused on noncompliant items cited on the last inspection report.

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