



Inspection Report

TRUSTEES OF DARTMOUTH COLLEGE

Customer ID: 166

Certificate: 12-R-0001

Site: 001

DARTMOUTH COLLEGE-ARC MOORE

204 PARKHURST BOX 6004

Type: ROUTINE INSPECTION

Date: Oct-27-2009

HANOVER, NH 03755

2.31 (d) (1) (ii)

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC).

2.31 (d) (1) (ii) - "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.....used to determine that alternatives were not available."

1. Review of Protocol #09-07-01: The written narrative of the methods and sources used to determine that alternatives were not available to the potentially painful or distressful procedures described in the proposal for animal use does not include the procedures of tracheostomy for endotracheal intubation and craniotomy in Piglets that are described in the proposal.

In order to approve proposed animal use activities, the IACUC should determine that the proposed activities meet the requirements as described in Section 2.31 (d) (1). Correct by 12/1/09.

2.31 (e) (3)

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC).

2.31 (e) (3) - "A proposal to conduct an activity involving animals, or to make a significant change in an ongoing activity involving animals, must contain the following: (3) A complete description of the proposed use of the animals."

1. Review of Protocol #09-07-01:

a. During the facility inspection 10/27/09, the APHIS inspectors asked the investigator to describe the animal use activities in the protocol. He/she stated that Halothane is used to anesthetize the Piglets, and Halothane anesthesia was used to anesthetize a Piglet on 10/28/09. Pages 6, 8, and 11 of the protocol state that Isoflurane will be used to anesthetize the Piglets; Halothane is not mentioned.

b. The protocol states on page 6 that "Cephaloxin" will be administered daily post-operatively; page 13 states that Bactrim or Baytril will be administered daily post-operatively.

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- c. Page 6 of the protocol asks for a listing of all of the drugs that the investigator intends to use on the animals.
- (1) Isoflurane is the only drug listed for general anesthesia; but page 11 states that an injection of Ketamine and Xylazine may be administered to induce general anesthesia.
 - (2) The neuromuscular blocking agent Pancuronium is listed but there is no description of the use of this agent elsewhere in the proposal for animal use.
- d. The protocol lists 5 aims of study, the number of animals needed for each aim, and a description of at least 10 different procedures that will be performed on the study animals. It is not clear from the information provided which animal use procedure(s) is/are associated with each aim.

A proposal for animal use must contain a complete description of the proposed animal use. The IACUC needs to address deviation from the approved procedure described in 1a above under item 1a and clarify the inconsistencies in this proposal. Correct by 12/1/09.

2. Review of Protocol #07-10-10r:

- a. Page 12 states that monkeys are pair housed as often as possible. It goes on to say that every effort will be put into finding compatible pairs. However, there is no indication that any attempts have been made to pair house the 4 monkeys presently at the facility.

Thus this represents a discrepancy between the protocol and the actual activity. Correct by 12/1/09.

2.31 (e) (5)

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC).

2.31 (e)(5) - "A proposal to conduct an activity involving animals, or to make a significant change in an ongoing activity involving animals, must contain the following: (5) A description of any euthanasia method to be used."

- 1. Review of Protocol #09-07-01: The protocol states on page 14 that the Piglets are euthanized with a combination of pentobarbital anesthesia and potassium chloride; page 15 states that the method of euthanasia at the end of the study is the administration of Euthasol. However, the investigator told the APHIS inspectors that the Piglets are euthanized with potassium chloride

A proposal for animal use must contain a description of the euthanasia methods used. The IACUC needs to address the discrepancies identified in the proposal for animal use pertaining to the method of euthanasia of study animals. Correct by 12/1/09.

2.32 (c) (1)

PERSONNEL QUALIFICATIONS.

2.32 (c) (1) - "Training and instruction of personnel must include guidance in at least the following areas: (1) Humane methods of animal maintenance and experimentation."

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1. On 8/12/09 a Hamster was euthanized by a member of an investigator's laboratory and then placed in the carcass cooler. Facility personnel found the Hamster alive in the carcass cooler on 8/13/09. The IACUC was notified and the investigator was contacted. The AV met with members of the investigator's staff on the correct method for euthanasia and a new policy has been instituted to prevent a recurrence.

It is the responsibility of the research facility to ensure that all personnel involved in animal care, treatment, and use are trained and qualified to perform their duties. Ongoing efforts should be made by the research facility to ensure that all personnel are trained in the humane methods of animal maintenance and experimentation. Correct from this date forward.

2.33 (b) (2)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE.

2.33 (b) (2) - "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. Bottles of saturated Potassium chloride solution (KCl) were noted in both Rm 746-E and the 5th floor surgery area during the inspection. Personnel present in each area stated that the KCl is used to euthanize AWA regulated animals at the end of research activity(s). The investigator showed the APHIS inspectors the jar of KCL powder from Fischer Scientific used to make up the KCL solution in Rm 746-E. The label on the jar of KCl states "For laboratory and manufacturing use only, not for drug, food, or household use". The 5th floor surgery area obtains the KCl from the scientific stockroom. Containers of KCL in the stockroom have the same statement on the label.

Non-pharmaceutical grade chemical compounds should only be used when veterinary or human pharmaceutical grade products are not available, or for scientific reasons with the approval of the IACUC. The IACUC and AV need to address this issue. Correct by 12/1/09.

2. NHP #23882 was noted by the AV on 12/15/08 as being "too thin". According to the records, the amount of food per day was increased and the animal gained weight. However, the animal appeared very thin to the APHIS inspectors because the animal's pelvic bones could be easily visualized.

A research facility should maintain a program of veterinary care so that any problems noted in the animals can be appropriately addressed. For the health of the animal, the thin body condition in the NHP should be evaluated by the AV. Correct by 12/1/09.

2.33 (b) (3)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE.

2.33 (b) (3) - "Each research facility shall establish and maintain programs of adequate veterinary care that include:
(3) A mechanism of direct and frequent communication is required so that timely and accurate information on

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problems of animal health, behavior, and well-being is conveyed to the attending veterinarian."

1. Review of Protocol #07-10-10r1 and record of NHP #23161: The protocol states that if the weight of a NHP drops below 15% of its baseline weight, the AV will be consulted regarding the health of the NHP. The baseline weight for NHP #23161 is listed as 9.9 kg. The weight on 10/23/09 was 8.31 kg; the weight on 10/26/09 was 8.15 kg. These weights are more than 15% below the baseline weight. The AV first learned of the NHP's weight from the APHIS inspectors and stated that she/he had not been contacted by the investigator as called for in the approved protocol.

Direct communication between facility personnel and the attending veterinarian about problems of animal health is important for the well-being of the animals. The research facility needs to address this issue. Correct by 12/1/09.

3.81 (c) (2)

ENVIRONMENT ENHANCEMENT TO PROMOTE PSYCHOLOGICAL WELL-BEING.

3.81 (c) (2) - "Dealers, exhibitors, and research facilities must develop, document, and follow an appropriate plan for environment enhancement adequate to promote the psychological well-being of nonhuman primates..... (c) Special considerations. Certain nonhuman primates must be provided special attention regarding enhancement of their environment, based on the needs of the individual species and in accordance with the instructions of the attending veterinarian. Nonhuman primates requiring special attention are the following: (2) Those that show signs of being in psychological distress through behavior or appearance."

1. NHP #23882 was noted by the APHIS inspectors to have signs of hair picking. The NHP had marked hair loss present on the trunk and on all 4 limbs. There was no documentation that the condition had been identified by facility personnel or that the NHP had been provided increased enrichment opportunities as described in the Special Considerations section of the facility's Enrichment Plan for Non-Human Primates.

2. NHP #3999 was noted by the APHIS inspectors to exhibit "eye poking" behavior. According to personnel, the behavior has been present since the animal arrived at the facility in 1/08. It does not appear that any special consideration has been provided to attempt to correct this behavior.

NHPs exhibiting signs of being in psychological distress must be provided with special attention regarding the enhancement of their environment. The facility must take appropriate measures to provide these NHPs special attention. Correct by 11/6/09.

3.81

ENVIRONMENT ENHANCEMENT TO PROMOTE PSYCHOLOGICAL WELL-BEING.

3.81 - "Research facilities must develop, document, and follow an appropriate plan for environment enhancement adequate to promote the psychological well-being of nonhuman primates."

1. The research facility's Enrichment Plan for Non-Human Primates states that "a lexan mirror will be attached to the

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outside of each occupied cage at all times". At the time of the inspection, only 1 of the 4 NHPs housed in B65 had a mirror attached to the outside of its enclosure.

A research facility must follow the Enrichment Plan for Non-Human Primates that it developed to promote the psychological well-being of the animals. The research facility needs to ensure that personnel follow the environmental enrichment plan for the health and well-being of the animals. Correct immediately from this date forward.

3.125 (c)

FACILITIES, GENERAL.

3.125 (c) - "Storage. Supplies of food and bedding shall be stored in facilities which adequately protect such supplies against deterioration, molding, or contamination."

1. Cart in the large animal hallway: an unsealed opened bag of milk replacer and an opened bag of BlueLite electrolyte granules. The label on the BlueLite states that "once the bag is opened, seal bag with tape or binder and place unused portion in a dry air sealable container".

Opened food supplies should be stored to adequately protect the supplies from deterioration and contamination. Correct by 11/6/09.

3.131 (c)

SANITATION.

3.131 (c) - "Housekeeping. Premises (buildings and grounds) shall be kept clean and in good repair in order to protect the animals from injury and to facilitate the prescribed husbandry practices set forth in this subpart."

1. The ceiling vent in the 544-E surgery room was dirty and coated with a layer of dust.
2. There was a thick layer of dirt and dust on the water pipes and water hoses above the Piglet enclosure in AH36.

Premises should be kept clean to facilitate the prescribed husbandry practices and for the health of the animals. These areas need to be cleaned. Correct by 11/6/09.

NOTE - This was a full facility inspection conducted by APHIS VMOs Dr. Steven Nusbaum and Dr. Paula Gladue from 10/27/09 to 10/29/09, with the exit interview on 10/29/09.

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Certificate: **12-R-0001**

Site: 001

DARTMOUTH COLLEGE-ARC MOORE

HANOVER, NH 03755

Type: ROUTINE INSPECTION

Date: Jun-25-2009

2.31 (d) (1) (ii)

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC).

IACUC review of activities involving animals. (1) In order to approve proposed activities or proposed significant changes in ongoing activities, the IACUC shall conduct a review of those components of the activities related to the care and use of animals and determine that the proposed activities are in accordance with this subchapter unless acceptable justification for a departure is presented in writing.

(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 used to determine that alternatives were not available.

1) The written narrative for Protocol Number 08-11-08 does not clearly identify the period of time covered by the search.

(The phrase "All inclusive through July 2008" is inadequate for delineating the time period involved.)

By not clearly identifying the period of time the narrative therefore does not describe a search that was adequate to determine that alternatives were not available.

Correct at the time of the next IACUC meeting.

2.33 (b) (1)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE.

Each research facility shall establish and maintain programs of adequate veterinary care that include:

(1) The availability of appropriate facilities and equipment to comply with the provisions of this subchapter.

1) Damage to the walls of the fifth floor operating room and tape on the instrument stand in the same room may not allow for adequate sanitization.

2) Rust on the wheels and knobs of the operating table in Moore does not allow for adequate sanitization.

Adequate sanitization is important to the health of the animals particularly when surgery is being performed.

Correct both noncompliances by 8/25/09.

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2.33 (b) (2)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE.

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) An outdated (expiration 5/07), partially used, 20ml bottle of xylazine injectable was found in the pharmacy area of B101.

The use of outdated drugs is not considered appropriate therapy.

Corrected immediately

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3.131 (c)

SANITATION.

Housekeeping. Premises (buildings and grounds) shall be kept clean and in good repair in order to protect the animals from injury and to facilitate the prescribed husbandry practices set forth in this subpart.

1) Holes and cracks in one section of the wall of the sheep room will make adequate cleaning/sanitization of the wall difficult.

Adequate cleaning and sanitization of animal enclosures is important to the health of the animals.

To be corrected before animals are put into the room.

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