



DEPARTMENT OF HEALTH & HUMAN SERVICES

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH

FOR US POSTAL SERVICE DELIVERY:

Office of Laboratory Animal Welfare
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Home Page: <http://grants.nih.gov/grants/olaw/olaw.htm>

FOR EXPRESS MAIL:

Office of Laboratory Animal Welfare
Rockledge One, Suite 360
6705 Rockledge Drive
Bethesda, Maryland 20817
Telephone: (301) 496-7163
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April 2, 2018

Re: Animal Welfare Assurance
A4365-01 [OLAW Case 3P]

Stephan S. Monroe, Ph.D
Associate Director for Laboratory
Science and Safety
Centers for Disease Control
1600 Clifton Road NE, (b)(6)
Atlanta, GA 30333

Dear Dr. Monroe,

The Office of Laboratory Animal Welfare (OLAW) acknowledges receipt of your March 28, 2018 letter reporting an instance of noncompliance with the PHS Policy on Humane Care and Use of Laboratory Animals at the Centers for Disease Control and Prevention. According to the information provided, OLAW understands that a deeply anesthetized rabbit was found unattended in a floor pen. It was determined by the veterinarian that the laboratory staff was not accurately documenting anesthetic dosage and recovery, and was not performing adequate recovery checks. The anesthetized rabbit subsequently recovered, however following staff retraining, two anesthetic deaths occurred in rabbits on the same protocol. It was determined that the rabbits had not received an appropriate heat source during recovery from anesthesia and became hypothermic.

The initial corrective actions consisted of the veterinary staff retraining the researchers, lowering the anesthetic dosage, dosing animals according to weight, preparing fresh anesthetic cocktails in the syringe, providing an external heat source, ensuring that anesthetic events are properly recorded, ensuring that animals are checked every fifteen minutes until fully recovered, and having staff proficiency evaluated by the veterinarians. Following the deaths, the veterinarians required that the animal procedures on this protocol must be conducted under direct veterinary supervision, adjusted the anesthetic dose, required that animals have temperature, pulse, and respiration checked at regular intervals during the procedure and recovery, and to record vital signs on the anesthesia sheet. A post-approval monitor recommended use of a heating pad during recovery, the protocol was amended to include the anesthetic procedures, monitoring, and documentation, and a Branch policy was developed to reflect these procedures.

Based on its assessment of this explanation, OLAW understands that measures have been implemented to correct and prevent recurrence of this problem. OLAW concurs with the actions taken by the institution to comply with the PHS Policy.

Sincerely,

Axel Wolff, M.S., D.V.M.
Deputy Director
Office of Laboratory Animal Welfare

cc: IACUC Chair

(b)(6)



March 28, 2018

PHS Assurance #A4365-01

Dr. Brent Morse
Acting Director, Division of Compliance Oversight
Office of Laboratory Animal Welfare
National Institutes of Health
Rockledge One, Suite 360
6705 Rockledge Drive – MSC 7982
Bethesda, MD 20892-7982

Dear Dr. Morse,

On December 8, 2017, the Animal Care and Use Program Office was notified by the resident veterinarian of a deviation from the Guide. During health checks, animal care staff found a rabbit heavily sedated in the floor pen following a recorded recovery from anesthesia. CDC's Deputy Chief veterinarian was notified of the incident and investigated. CDC determined that investigative staff were not accurately documenting anesthesia in regards to dosage and recovery. They also were not performing adequate recovery checks from anesthetic events. Fortunately, the rabbit fully recovered.

In response to this incident, CDC veterinarians worked with investigative staff on the protocol to immediately institute re-training and adjust the dosage of anesthesia. Corrective actions included:

- Lowering the dose of anesthetic drug.
- Dosing animals according to their weight.
- Not premixing anesthetic drugs in bottle but making fresh preparations in syringe prior to use.
- Providing an external heat source during recovery.
- Properly recording anesthetic event and rechecking every 15 minutes until animal is fully recovered, ambulating normally, and appropriately interacting with its environment.

All investigative staff were re-trained on these anesthetic procedures and skills assessed through direct observation by CDC veterinarians.

Despite these measures, on January 12, 2018, two anesthetic deaths in rabbits occurred under the same protocol. CDC's Deputy Chief veterinarian immediately investigated again and determined animals were hypothermic and did not receive an appropriate heat source during

recovery from anesthesia. In response to this second incident, CDC veterinarians worked with investigative staff again, directly supervised protocol procedures and instituted the following additional measures:

- Adjusted anesthetic dosing
- During procedure under anesthesia, trained investigative staff to check and record animal's temperature, pulse, and respiratory rate (TPRs) every 10-15 minutes.
- During recovery, trained investigative staff to check and record animal's TPRs every 5 minutes during recovery from anesthesia until animal is able to hold itself in the sternal position. Once sternal and returned to cage, animal may be checked every 15 minutes until fully conscious, (i.e., holding its head erect and aware of his surroundings).
- Instructed investigative staff to write vitals on anesthesia sheet and initial.
- Mandated procedures under the protocol could only be performed under the direct supervision of a CDC veterinarian until further notice.

As an additional measure, the Post Approval Monitoring (PAM) liaison conducted a PAM visit with the investigative staff to observe their procedures listed in the protocol on February 5, 2018. The liaison also recommended the use of a heating pad for the rabbit until it is fully conscious to allow for the animal to maintain its body temperature through the recovery period, as animals felt cold to the touch during the anesthetic procedure. In response to these recommendations, the principal investigator worked with CDC veterinarians and ACUPO staff to put in an amendment to the protocol with details on anesthetic procedures, monitoring, and recordkeeping in accordance with CDC veterinary standard operating procedures and also developed a Branch policy on these procedures.

At this time, procedures on this protocol are only being performed under supervision by a CDC veterinarian until optimal anesthetic dosing for these animals is determined and skills competencies of investigative staff in anesthetic procedures are assured.

The CDC-Atlanta IACUC discussed these incidents at the February 5 and March 8, 2018 meetings. The committee voted to report these incidents to OLAW. Upon the corrective actions outlined above, the committee did not feel that any other actions were needed at this time.

Sincerely,

3/28/2018

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Centers for Disease Control and Prevention

X

Stephan S. Monroe, PhD
Assoc Dir Lab Science & Safety
Signed by: PIV

Stephan S. Monroe, PhD
Institutional Official
Associate Director for Laboratory Science
and Safety