



Inspection Report

Washington University
660 S Euclid Campus Box 8106
Saint Louis, MO 63110

Customer ID: **1444**
Certificate: **43-R-0008**
Site: 004

WASHINGTON UNIVERSITY

Type: ROUTINE INSPECTION
Date: 23-AUG-2017

2.33(b)(4) CRITICAL REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE.

In August 2017 the facility self-reported the following incident to the USDA. On June 1, 2017 an adult male cynomolgus macaque died unexpectedly during transport to necropsy after the conclusion of a MRI and PET scan procedure. The IACUC self-identified that there was non-compliance with the facility's IACUC policies and a failure to follow the protocol. The animal was under anesthesia during the procedure and there were gaps in physiological monitoring (i.e. SpO2, PR, RR, EtCO2, body temperature and BP) based on the records, which should have occurred every 15 minutes. For example, there were no entries on anesthetic monitoring recorded between 3:47 am and 4:26 am (39 minutes); there were no entries for temperature or EtCO2 from 3:47 am to 8:20 am (4 hours, 33 minutes); and there was a lack of physiologic monitoring recorded between 7:00 am to 8:20 am (80 minutes). Also, the animal experienced ongoing complications such as hypothermia, hypotension, wet lung sounds and fluid in the endotracheal tube during the anesthetic procedure. The first documented rectal temperature near the start of the procedure at 3:47 am was recorded as 95.7 degrees F. Although a Bair Hugger had been placed on the animal around 4:25am, the next recorded temperature continued to be decreased at 94.8 degrees F at 8:20 am. Although the animal's temperature began to slowly increase after this time, the animal's recorded SpO2 dropped to 85% at 9:25 am (ranging 81%-91% from 9:25 am to 11:05 am) while previously being recorded mostly in the mid to upper 90's. Wet lung sounds and removal of some fluid from the endotracheal tube were first documented by the laboratory veterinary technician at 8:00 am. A veterinarian was contacted by phone by the PI approximately 6 hours into the approximately 8 hour procedure, at which time the veterinarian's suggestions were followed. Although interventional steps were taken, including assistance from the Division of Comparative Medicine's (DCM) veterinary technicians, and the laboratory staff felt the animal was stable, the animal's SpO2 values continued to be low and the animal died before the planned euthanasia. The IACUC also determined that the on-call veterinary staff should have been contacted prior to when a veterinarian had been called given the ongoing complications noted throughout the procedure.

By monitoring and recording physiologic parameters during anesthetic procedures at regular intervals, and as according to the protocol and facility's policies, changes in those parameters may be identified and addressed sooner. This can decrease possible negative effects on the health and well-being of the animal.

The research facility acted promptly to address this incident by conducting an investigation, reporting the incident to OLAW and USDA, and swiftly implementing appropriate corrective actions to prevent future occurrences. Corrective actions taken include, but are not limited to, retraining of the PI and laboratory staff, requiring use of DCM's

Prepared By: LEISNER ERIKA, D V M USDA, APHIS, Animal Care

Date:
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anesthesia monitoring record and a period of increased monitoring of the laboratory's physiological records. This item has been corrected by the facility. The facility must ensure that it maintains programs of adequate veterinary care that include guidance to principal investigators and other personnel involved in the care and use of animals regarding handling, immobilization, anesthesia, analgesia, tranquilization, and euthanasia at all times.

The inspection was conducted on August 23-25, 2017 and an exit interview was conducted on August 25, 2017 with facility representatives.

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Species Inspected

Cust No	Cert No	Site	Site Name	Inspection
1444	43-R-0008	004	WASHINGTON UNIVERSITY	23-AUG-17

Count	Scientific Name	Common Name
000002	<i>Canis lupus familiaris</i>	DOG ADULT
000063	<i>Cavia porcellus</i>	DOMESTIC GUINEA PIG
000016	<i>Cricetulus migratorius</i>	ARMENIAN HAMSTER / MIGRATORY HAMSTER
000005	<i>Macaca fascicularis</i>	CRAB-EATING MACAQUE / CYNOMOLGUS MONKEY
000050	<i>Macaca mulatta</i>	RHESUS MACAQUE
000053	<i>Meriones unguiculatus</i>	MONGOLIAN GERBIL (COMMON PET / RESEARCH VARIETY)
000027	<i>Mesocricetus auratus</i>	SYRIAN / GOLDEN HAMSTER (COMMON PET/RESEARCH TYPE)
000011	<i>Mustela putorius furo</i>	DOMESTIC FERRET
000017	<i>Oryctolagus cuniculus</i>	DOMESTIC RABBIT / EUROPEAN RABBIT
000004	<i>Sus scrofa domestica</i>	DOMESTIC PIG / POTBELLY PIG / MICRO PIG
000248	Total	