

NOV 28 2008

See attached form for additional information.

Interagency Report Control No. *g*

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE ANNUAL REPORT OF RESEARCH FACILITY (TYPE OR PRINT)	1. CERTIFICATE NUMBER: 23-R-0016 CUSTOMER NUMBER: 289	FORM APPROVED OMB NO. 0579-0036
University Of Pittsburgh 3500 Terrace Street S1040 Bio Sci. Twr. Pittsburgh, PA 15261 Telephone: (412) -648-8950		

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, or experimentation, or held for these purposes. Attach additional sheets if necessary)

FACILITY LOCATIONS (Sites) - See Attached Listing

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use APHIS Form 7023A)

A. Animals Covered By The Animal Welfare Regulations	B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals an for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for wh the use of appropriate anesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, res or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reasr such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs			101		101
5. Cats	10		113	6	119
6. Guinea Pigs		6	38		44
7. Hamsters	12	64			64
8. Rabbits	2	122	918		1040
9. Non-human Primates	62	68	513	1	582
10. Sheep			21		21
11. Pigs	2		337		337
12. Other Farm Animals					
Goats			20		20
13. Other Animals					
Calves			18		18
Ferrets		48	50		98

ASSURANCE STATEMENTS

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual rest teaching, testing, surgery, or experimentation were followed by this research facility.
- 2) Each principal investigator has considered alternatives to painful procedures.
- 3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and ap Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC-approved exceptions, this summary inlc brief explanation of the exceptions, as well as the species and number of animals affected.
- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

SIGNATURE BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
 (Executive Officer or Legally Responsible Institutional Official)

SIG APH	(b)(6), (b)(7)(c)	(b)(6), (b)(7)(c)	DATE SIGNED 11/9/08
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(Signature box is obsolete.)

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Summary of exceptions to the regulations and standards, specified and explained by the principal investigators and approved by the IACUC

IACUC review and justification for exception to AWA Regulation: CFR Title 9 1.A to section 3.6 for resting surfaces. Four protocols from two investigators were approved for the removal of mandated resting boards for cats.

Protocols: 0508947, 0607291, 0610768, 0705681, 0712856 and 0801862

Species affected: Cats

Dispensation from the use of resting board in feline caging systems

Explanation: The resting surface required for cats under the AWA was removed after vestibular system lesions. Animals become posturally unstable following these lesions, such they may injure themselves when trying to jump onto the raised platform. In addition, this metal structure is approximately at the level of the animal's head, and damage to head implants could occur if the animal stumbles into the platform as a result of its postural stability.

A mat is placed on the bottom of the cage to provide a comfortable resting surface after the raised metal platform is removed.

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Column E Explanations

1) Registration Number: <u>23-R-0016</u>
2) Species (common name) used in study: Cat
3) Number of animals used in this study: 2
4) Explanation of procedures producing pain and/or distress and scientific justification why pain and/or distress could not be relieved: Protocol # 0609643 Justification from Protocol/ PI: Spinalization will be performed under isoflurane anesthesia. Ketoprofen (2-3 mg/kg, 3 days) will be given on the days following spinalization. Additional analgesics will be given according to the DLAR veterinarian's recommendations. Currently there is no appropriate treatment to further alleviate any possible distress due to the animal's inability to move their hind limbs; therefore they are classified as category E.

1) Registration Number: <u>23-R-0016</u>
2) Species (common name) used in study: Cat
3) Number of animals used in this study: 1
4) Explanation of procedures producing pain and/or distress and scientific justification why pain and/or distress could not be relieved: Protocol #: 0607291 Justification from Protocol/ PI: (type or copy here): This project involves the production of inner ear lesions, which affects balance and postural stability. Anesthetics were employed during every surgery, and analgesia was delivered after every surgery. Nonetheless, deep sedation would be required to assure than animals were not potentially distressed by the postural instability and balance deficits that they experienced immediately following removal of vestibular inputs. Such level of analgesia would not be prudent because it would impact on the data collected after the surgery and would also interfere with the animal's compensation for the effects of the lesion. It is well established in the human literature that compensation after vestibular lesions occurs more readily if movement is attempted than if the patient remains sedentary. Vestibular rehabilitation is based on the notion that improvement can only occur following vestibular lesions if subjects make frequent head and body movements. Thus, even if we were to sedate animals for several days following surgery, they would likely experience distress after the sedation is discontinued (as they did not compensate for the lesion after surgery). We thus deemed it most beneficial both scientifically and for the long-term condition of the animal to refrain from providing sedation following removal of vestibular inputs.

1) Registration Number: <u>23-R-0016</u>
2) Species (common name) used in study: Cat
3) Number of animals used in this study: 2
4) Explanation of procedures producing pain and/or distress and scientific justification why pain and/or distress could not be relieved: Protocol #: 0801862 Justification from Protocol/ PI: (type or copy here): This project involves the production of inner ear lesions, which affects balance and postural stability. Anesthetics were employed during every surgery, and analgesia was delivered after every surgery. Nonetheless, deep sedation would be required so assure that animals were not potentially distressed by the postural instability and balance deficits that they experienced immediately following removal of vestibular inputs. Such level of analgesia would not be prudent because it would impact on the data collected after the surgery and would also interfere with the animal's compensation for the effects of the lesion. It is well established in the human literature that compensation after vestibular lesions occurs more readily if movement is attempted than if the patient remains sedentary. Vestibular rehabilitation is based on the notion that improvement can only occur following vestibular lesions if subjects make frequent head and body movements. Thus, even if we were to sedate animals for several days following surgery, they would likely experience distress after the sedation is discontinued (as they did not compensate for the lesion after surgery). We thus deemed it most beneficial both scientifically and for the long-term condition of the animal to refrain from providing sedation following removal of vestibular inputs.

1) Registration Number: <u>23-R-0016</u>
2) Species (common name) used in study: Cat
3) Number of animals used in this study: 1
4) Explanation of procedures producing pain and/or distress and scientific justification why pain and/or distress could not be relieved: Protocol # 0705681 Justification from Protocol/ PI: (type or copy here): Spinalization will be performed under isoflurane anesthesia. Ketoprofen (2-3 mg/kg, 3 days) will be given on the days following spinalization. Additional analgesics will be given according to the DLAR veterinarian's recommendations. Currently there is no appropriate treatment to further alleviate any possible distress due to the animal's inability to move their hind limbs; therefore they are classified as category E.

1) Registration Number: <u>23-R-0016</u>
2) Species (common name) used in study: Non-Human Primate (<i>Macacca fascicularis</i>)
3) Number of animals used in this study: 1
4) Explanation of procedures producing pain and/or distress and scientific justification why pain and/or distress could not be relieved: Protocol # 0802011 Justification from Protocol/ PI: (type or copy here): Appropriate anesthesia and analgesia are used for all procedures outlined in this protocol. However, occasionally during the course of <i>M. tuberculosis</i> infection, an animal will rapidly progress to disease, and may potentially be in distress. If this animal is in the control group, it would not be treated with antibiotics. However, we closely monitor the animals, and would euthanize an animal that because acutely ill during the experiment. We use the E category to cover the possibility that a monkey would develop rapidly progressive disease, and not be treated with antibiotics. Rapid progression occurs in ~5% of infected monkeys, but most of these would be treated. The number of animals in the E category is likely to be an overestimate, but performing bronchoscopy on monkeys with substantial lung disease could also lead to distress, perhaps even necessitating a necropsy, so this is covered under the E category as well.