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UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 13-R-0001
CUSTOMER NUMBER: 273

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

University Of Vermont
State Agricultural College
(b)(2)High, (b)(7)f
Burlington, VT 05405

Telephone: (802) -656-0459

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 and 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 which the use of appropriate anesthetic, analgesic, or tranquiliz- ing drugs would have adversely affected the procedures, res- ults or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reason such drugs were not used must be attached to this report)	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs			5		5
5. Cats			—		
6. Guinea Pigs		246	—	104	350
7. Hamsters		75	—		75
8. Rabbits		10	7		17
9. Non-human Primates		—	—		
10. Sheep		—	—		
11. Pigs		—	—		
12. Other Farm Animals					
13. Other Animals					
Deer mouse		31			44
Woodland jumping mouse		10			
Chipmunk mouse		3			
Grand total					491

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 research, 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 an 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 includes a 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.

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

SIGNATURE OF C.E.O.

SIGNATURE OF IACUC OFFICIAL (If Applicable)

DATE SIGNED
11/23/09

(b)(6), (b)(7)c

12-4-09 NOV 30 2009

Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are required as part of an explanation. A column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: Customer # 273, Certificate # 13 - R- 0001
2. Number 104 of animals used in this study.
3. Species (common name) Guinea pigs of animals used in this study.
4. **Explain the procedure producing pain and/or distress:** This study utilizes a guinea pig model of inflammatory bowel disease. The study is designed to establish what changes occur in neuronal circuitry of the colon during inflammation. The inflammation is produced by infusing 0.5 ml of the chemical agent trinitrobenzene sulphonic acid (TNBS) under anesthesia into the lumen of the guinea pig's colon by enema. Following recovery from anesthesia, animals are observed twice daily for five days followed by once daily for an additional five days. They are weighed daily post-TNBS until they have gained weight three days in a row. Any guinea pig losing >20% of body weight in a three-day period post-TNBS infusion is euthanized. With the described procedures, the guinea pigs typically develop mild inflammatory bowel disease, then recover and resume weight gains within three to five days. The animals are euthanized over the next 3-56 days. The approved IACUC protocol number is 07-007.
5. **Provide scientific justification why pain and/or distress could not be relieved. State methods used to determine that pain and/or distress relief would interfere with test results.** The analgesic agent buprenorphine and other opiates decrease intestinal motility which may result in increased TNBS residence time in the colon. This potentially alters the inflammatory response and hence the scientific findings of the study. Similarly, the post-procedural use of non-steroidal anti-inflammatory agents in this study is likely to affect the inflammatory disease itself and invalidate the scientific findings.
6. **What federal regulations require this procedure?** Not Applicable.