

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 52-R-0007
CUSTOMER NUMBER: 493

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Virginia Commonwealth University
Div Of Ani Rscs, P.O. Box 980630
Richmond, VA 23298

Telephone: (804) -828-9837

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

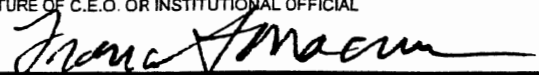
REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use APHIS Form 7023A)

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 tranquilizing drugs would have adversely affected the procedures, results or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reasons such drugs were not used must be attached to this report)	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
Dogs			22		22
Cats			9		9
Guinea Pigs	2		16		16
Hamsters			8		8
Rabbits	12		435		435
Non-human Primates	9	5	18	21	44
Sheep			29		29
Pigs	6		226		226
Other Farm Animals					
Chickens		16			16
Other Animals					
Frogs		32	18		50
Ferrets			93		93

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 approved by the 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. OR INSTITUTIONAL OFFICIAL 	NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print) Francis L. Macrina, Ph.D., V.P. Research	DATE SIGNED 11/28/07
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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 not 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: 52-R-0007
2. Number of animals used in this study: 21
3. Species (common name) of animals used in the study: rhesus monkeys
4. Explain the procedure producing pain and/or distress.

Twenty one rhesus monkeys were used as part of our program to evaluate drug dependence liability of new compounds. These rhesus monkeys are physically dependent on morphine. Periodically, they are allowed to go into spontaneous withdrawal, or withdrawal is precipitated by opioid antagonists. During this time they experience moderate to severe stress. Once in withdrawal, the monkeys are injected with the investigational compound, or morphine, or saline and then observed to assess their withdrawal state. On completion of the observation period, all withdrawal signs and symptoms are relieved by an injection of morphine. It is important to note that while these experiments are repetitive in nature, a new investigational chemical is being tested on each occasion. Many of these chemicals are opioid in nature and relieve the withdrawal signs and symptoms.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with the test results. (For Federally mandated testing, see Item 6 below).

The distress produced by this procedure is the end-point being measured. As indicated above, many of the compounds tested relieve these symptoms and the experiment is terminated immediately after the observation period by the administration of morphine which also relieves the withdrawal signs.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g. APHIS, 9 CFR 113.102)

The results from our testing are used by both the FDA and the DEA in making decisions concerning the Controlled Substances Act.

Description of Exceptions to Applicable Regulations

- The IACUC has approved one exception as pertains to cage size. It has allowed a cage height of 30" to 31.5" (cages taper from front to back) for rhesus monkeys up to 15 kg in weight. The "Guide" recommends a cage height of 32". The design of the cage overcompensates on the floor space area at 9 square ft for one animal rather than the 6 square feet recommended.
- The IACUC has approved a protocol conducting surgical procedures on ferrets in an individual laboratory. VCU's Office of Environmental Health and Safety (OEHS) advised that the safety concerns regarding the injection of a replication incompetent recombinant herpes simplex virus into brain tissue outweighed the use of a dedicated surgical facility for this small animal, and the IACUC approved the use of a biosafety cabinet with the appropriate air flow.