

DEC 05 2005

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE  <b>ANNUAL REPORT OF RESEARCH FACILITY</b> ( TYPE OR PRINT )	1. CERTIFICATE NUMBER: 51-F-0006 CUSTOMER NUMBER: 437	FORM APPROVED OMB NO. 0579-0036
U.S. Army Medical Research Institute Of Chemical Defense Attn: Mcmr-Uv-Za 3100 Ricketts Point Road Aberdeen Prov Grnd, MD 21010		

**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 ye used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use o 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 reas such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS ( COLUMNS C + D + E )
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	907	901	4,519	6,327
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	16	0	16
9. Non-human Primates	32	7	42	42	91
10. Sheep	0	0	0	0	0
11. Pigs	0	0	34	0	34
12. Other Farm Animals					
N/A					
13. Other Animals					

**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 rese 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 inc 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 ( Executive Officer or Legally Responsible Institutional Official )		
(b)(6), (6)(7)(C)	NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL ( Type or Print )  (b)(6), (6)(7)(C)	DATE SIGNED

obsolete.)

Jagw

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

DEC 05 2005

Protocol 1

1. A total of 1,046 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain would lead to an erroneous evaluation of the toxicity of agents and efficacy of pretreatment, treatment, and decontamination procedures.
4. No federal regulations mandate this procedure.

DEC 05 2005

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

Protocol 2

1. A total of 408 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Anesthetics or analgesics cannot be used in any of the procedures involving agent administration and/or pretreatment and treatment with any of the medical countermeasures. One of the principle effects of agent intoxication is respiration paralysis. This is also a major side effect of anesthetics and analgesics. Conducting these experiments under anesthesia or analgesia could lead to faulty interpretation of the toxicity data and/or the effectiveness of the countermeasures because of the synergistic respiratory depressant effects of these drugs with the agent.
4. No federal regulations mandate this procedure.

DEC 05 2005

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

Protocol 3

1. A total of 31 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Should it occur, pain/distress might be relieved to some extent by administration of one of the test drugs that successfully terminates the seizure. Anesthetics and analgesics are known to have profound effects on brain function that can interact with the drugs of interest, the synthesis and release of brain neurotransmitters and/or the toxicity of the nerve agent and thus complicate interpretation of the results.
4. No federal regulations mandate this procedure.

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

DEC 05 2005

Protocol 4

1. A total of 241 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Should it occur, pain/distress might be relieved to some extent by administration of one of the test drugs that successfully terminates the seizure. Anesthetics and analgesics are known to have profound effects on brain function that can interact with the drugs of interest, the synthesis and release of brain neurotransmitters and/or the toxicity of the nerve agent and thus complicate interpretation of the results.
4. No federal regulations mandate this procedure.

DEC 05 2005

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

Protocol 5

1. A total of 644 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on brain, tissue, and organ function that can interact with the synthesis and release of brain neurotransmitters, and/or the toxicity of nerve agent and thus complicate interpretation of the results.
4. No federal regulations mandate this procedure.

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

DEC 05 2005

Protocol 6

1. A total of 45 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain would lead to an erroneous evaluation of the toxicity of agents and efficacy of pretreatment, treatment, and decontamination procedures.
4. No federal regulations mandate this procedure

DEC 05 2005

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

Protocol 7

1. A total of 23 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Cardiovascular function can be altered by anesthetics or analgesics. It is, therefore, imperative that nerve agent administration be performed in the absence of these drugs.
4. No federal regulations mandate this procedure

DEC 05 2005

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

Protocol 8

1. A total of 174 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on brain function, to include electrical seizure activity in the brain that can interact with the drugs and would complicate interpretation of results.
4. No federal regulations mandate this procedure

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

DEC 05 2005

Protocol 9

1. A total of 53 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain/discomfort/distress caused by nerve agent-induced convulsion would alter the progression of brain damage by minimizing the effects of nerve agent, rendering data acquisition less accurate.
4. No federal regulations mandate this procedure

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

DEC 05 2005

Protocol 10

1. A total of 32 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on toxicity of nerve agents and, thus, can complicate interpretation of results.
4. No federal regulations mandate this procedure

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

DEC 05 2005

Protocol 11

1. A total of 15 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain would lead to an erroneous evaluation of the toxicity of agents and efficacy of pretreatment, treatment, and decontamination procedures.
4. No federal regulations mandate this procedure.

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

DEC 01 2005

Protocol 12

1. A total of 14 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Agent exposure by direct lung ventilatory exposure.
3. Justification: Accurate results of this study are critically important for extrapolating the data to other species or humans, to establish a dose-response relationship for inhalation toxicity of nerve agent exposure and to determine the efficient therapeutic strategy for war-fighter and world-wide civilian exposure to organophosphates. Using anesthetics/analgesics or other pharmacological agents during recovery is expected to interfere and complicate the results and will be used at the beginning and end to improve the integrity and experimental outcome.
4. No federal regulations mandate this procedure.

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

DEC 05 2005

Protocol 13

1. A total of 81 column "E" guinea pigs were utilized in this study.
2. Painful procedure: The pharmacokinetics of the oxime compounds will be determined alone and in the presence of nerve agent. It is expected that the animals receiving nerve agents will experience some degree of pain/discomfort before the beneficial effects of the therapy compounds are realized.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on toxicity of nerve agents and, thus, can complicate interpretation of results.
4. No federal regulations mandate this procedure.

DEC 05 2005

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

Protocol 14

1. A total of 150 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on brain, tissue, and organ function that can interact with the synthesis and release of brain neurotransmitters, and/or the toxicity of nerve agent and thus complicate interpretation of the results.
4. No federal regulations mandate this procedure.

DEC 05 2005

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

Protocol 15

1. A total of 70 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain would lead to an erroneous evaluation of the toxicity of agents and efficacy of pretreatment, treatment, and decontamination procedures.
4. No federal regulations mandate this procedure.

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

DEC 05 2005

Protocol 16

1. A total of 37 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain would lead to an erroneous evaluation of the toxicity of agents and efficacy of pretreatment, treatment, and decontamination procedures.
4. No federal regulations mandate this procedure.

DEC 05 2005

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

Protocol 17

1. A total of 1,320 column "E" guinea pigs were utilized in this study.
2. Painful procedure: This study requires exposure to lethal doses of nerve agents in live unanesthetized animals.
3. Justification: One of the principal sequelae of nerve agent intoxication is respiratory paralysis, which also happens to be a major side effect of anesthetics and analgesics. The use of anesthesia or analgesics could lead to faulty interpretation of the effectiveness of the countermeasures because of the synergistic respiratory depressant effects of these drugs with nerve agents.
4. No federal regulations mandate this procedure.

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

DEC 05 2005

Protocol 18

1. A total of 135 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain would lead to an erroneous evaluation of the toxicity of agents and efficacy of pretreatment, treatment, and decontamination procedures.
4. No federal regulations mandate this procedure.

DEC 05 2005

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

Protocol 19

1. A total of 37 column "E" nonhuman primates were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Anesthetics and analgesics are known to have profound effects on brain function that can interact with the drugs of interest and/or the toxicity of the nerve agent and thus complicate the interpretation of the results.
4. No federal regulations mandate this procedure.

DEC 05 2005

Column E Explanation Form  
USAMRICD – FY 05  
Registration Number: 51-F-0006

Protocol 20

1. A total of 5 column "E" nonhuman primates were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Anesthetics and analgesics are known to have profound effects on brain function that can interact with the drugs of interest and/or the toxicity of the nerve agent and thus complicate the interpretation of the results.
4. No federal regulations mandate this procedure.