

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average .5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.		OMB APPROVED 0579-0036
		Interagency Report Control No. 0180-DOA-AN
Fiscal year: 10/01/2020-09/30/2021		
UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE Annual Report of Research Facility Column E Explanation (TYPE OR PRINT)		
This information is required by law (7 U.S.C. 2143 and 9 C.F.R. §2.36). Failure to report according to the regulations can result in an order to cease and desist.		
1. REGISTRATION NUMBER 57-R-0003	2. Research Facility Headquarters address Emory University 954 Gatewood Road Atlanta, GA 30329	
3. Number of animals used in the study. 14	4. Species (common name) of animals used in the study. Rabbit	
5. Explain the procedure producing pain and distress. Rabbits were used in a project to study Retinoblastoma tumor formation and progression. Animals were injected with tumor cells and then treated with different agents including cyclosporin A to see if tumor formation and progression is affected. Retinoblastoma usually does not metastasize to the distant organs; most of the expected complications arise from the daily injection of cyclosporin A. Animals are monitored during the study using standard IACUC approved guidelines, and if animals reach humane endpoint prior to study completion they are euthanized.		
6. Provide the scientific justification for not providing the appropriate anesthetics, analgesics, or tranquilizing drugs during procedures where the animal experienced accompanying pain or distress greater than momentary or slight. Animals were injected with tumor cells and then treated with different agents including cyclosporin A to see if tumor formation and progression is affected. Treatment to relieve pain and stress due to tumor formation and cyclosporin A treatment was withheld because the administration of pain-relieving drugs would affect inflammatory responses which could affect the study results. The protocol has a well-established plan to alter cyclosporin-A treatment levels, or sacrifice animals if toxicity is expected. The IACUC reviewed and approved these Class E procedures.		
7. 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):		
Agency NA	CFR NA	

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3. Number of animals used in the study. 95	4. Species (common name) of animals used in the study. Vole	
5. Explain the procedure producing pain and distress. In this study, an intruder is added to the home cage of an animal which can result in aggressive behavior, including aggressive grooming or posture, lunging, swiping, sniffing, and attack behavior. The resident-intruder test follows standard protocols for rodents (particularly for prairie voles). This involves placing a novel, same-sex conspecific of the approximate body weight of the subject into the subject's home cage for 5 min. Behaviors are video recorded and scored by a trained experimenter. Voles in the resident intruder test are observed continuously with intervention and immediate termination in the event of wounding or severe distress. At the end of the test, the intruder is removed and the subject is placed in to a new home cage that contains clean bedding and sanichips and no scent of the intruder.		
6. Provide the scientific justification for not providing the appropriate anesthetics, analgesics, or tranquilizing drugs during procedures where the animal experienced accompanying pain or distress greater than momentary or slight. It is of great interest to understand the mechanisms of aggression. In controlled experiments (particularly those that involve neural manipulation), studies of aggression can ethically only be conducted in non-human animals. Thus there is the potential for translational insight to be gained from the examination of aggression in these experiments. To minimize distress, we utilize a short 5 min resident-intruder test to assess aggressive behavior. The IACUC reviewed and approved these class E procedures. This study closed on 9/1/2021.		
7. 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):		
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3. Number of animals used in the study. 27	4. Species (common name) of animals used in the study. Gerbil	
5. Explain the procedure producing pain and distress. Gerbils were used in a project involving mild stressors that are categorized as class "E". Animals are exposed to conditions including the following procedures: the resident intruder test, latency to feed in presence of a novel object (food restriction), and social stress exposure. In the resident intruder test, the animal is acclimated for 1 h in the test cage, then a novel, same-sex conspecific of the approximate body weight of the subject is placed into the test cage for 5 min. Gerbils are observed continuously with intervention and immediate termination in the event of wounding or severe distress. For the social stress exposure, subjects are removed from their home cage using a beaker and are placed alone in a novel, clean cage for 1 hr. In the latency to feed experiment, animals are food deprived for 3 hours before the initiation of the test. Animal subjects will be placed in a novel open arena containing a novel object (a 3D printed 'giant' red/blue/yellow lego person) with sunflower seeds at the feet of the object. The latency to approach the novel object to obtain the sunflower seeds will be recorded.		
6. Provide the scientific justification for not providing the appropriate anesthetics, analgesics, or tranquilizing drugs during procedures where the animal experienced accompanying pain or distress greater than momentary or slight. The goal of these studies is to deconstruct social behavior in order to have a comprehensive understanding of the factors that influence social interactions and to identify similarities and differences in the mechanisms underlying them. In these tests, animals are exposed for a limited time to a human intruder, food restriction, or removed to single housing. Treatment to relieve the temporary stress is withheld because the investigator studies the response of the experimental animal to a mildly stressed stimulus. The IACUC reviewed and approved these Class E procedures.		
7. 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):		
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<p>3. Number of animals used in the study.</p> <p>24</p>	<p>4. Species (common name) of animals used in the study.</p> <p>Spiny Mouse</p>	
<p>5. Explain the procedure producing pain and distress.</p> <p>Spiny mice were used in a project involving mild stressors that are categorized as class "E". Animals are exposed to conditions including the following procedures: the resident intruder test, latency to feed in presence of a novel object (food restriction), and social stress exposure. In the resident intruder test, the animal is acclimated for 1 h in the test cage, then a novel, same-sex conspecific of the approximate body weight of the subject is placed into the test cage for 5 min. Spiny mice in the resident intruder test are observed continuously with intervention and immediate termination in the event of wounding or severe distress. For the social stress exposure, subjects are removed from their home cage using a beaker and are placed alone in a novel, clean cage for 1 hr. In the latency to feed experiment, animals are food deprived for 3 hours before the initiation of the test. Animal subjects will be placed in a novel open arena containing a novel object (a 3D printed 'giant' red/blue/yellow lego person) with sunflower seeds at the feet of the object. The latency to approach the novel object to obtain the sunflower seeds will be recorded.</p>		
<p>6. Provide the scientific justification for not providing the appropriate anesthetics, analgesics, or tranquilizing drugs during procedures where the animal experienced accompanying pain or distress greater than momentary or slight.</p> <p>The goal of these studies is to deconstruct social behavior in order to have a comprehensive understanding of the factors that influence social interactions and to identify similarities and differences in the mechanisms underlying them. In these tests, animals are exposed for a limited time to a human intruder, food restriction, or removed to single housing. Treatment to relieve the temporary stress is withheld because the investigator studies the response of the experimental animal to a mildly stressed stimulus. The IACUC reviewed and approved these Class E procedures.</p>		
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3. Number of animals used in the study. 9	4. Species (common name) of animals used in the study. Hamster	
5. Explain the procedure producing pain and distress. Hamsters are used to produce <i>Schistosoma haematobium</i> eggs for mesocosm experiments that require snail exposure to miracidia. Hamsters were exposed to 350 <i>S. haematobium cercariae</i> in 2 cm deep room temperature water for 1 hour for infection.		
6. Provide the scientific justification for not providing the appropriate anesthetics, analgesics, or tranquilizing drugs during procedures where the animal experienced accompanying pain or distress greater than momentary or slight. Hamsters are required as surrogate definitive hosts for <i>S. haematobium</i> . It is expected that the parasite infection levels will have only subtle effects on the animals' behavior and survival. Nevertheless, infection by any parasite may cause pain, discomfort or distress and methods described will be continuously refined so as to reduce animal discomfort. Palliative treatment options such as NSAIDs and analgesics are not recommended because they impair the growth of infecting schistosomes, reducing the number of viable eggs that are produced (Farg et al. Annals of Tropical Medicine and Parasitology, 1995, 89:497-504, Nessim and Mahmoud, International Journal of Infectious Diseases, 2007, 11:161-165), which would then require the use of additional animals and potentially affect the validity of research projects by increasing variability in egg viability or infectivity after hatching. Animals were housed with appropriate enrichment and monitored for clinical symptoms of schistosomiasis daily. The IACUC reviewed and approved these Class E procedures		
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