

### 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: 93-R-0047
2. Number 7 of animals used in this study.
3. Species (common name) Guinea Pig of animals used in the study.
4. Explain the procedure producing pain and/or distress.

These animals were used for a pilot study to evaluate a model for painful bladder syndrome. The procedure for this study involves the administration of a one-time dose of cyclophosphamide by IP injection. Urinary voiding frequency and behavior is then observed for 72 hours. Once this model is validated it will be used to test therapeutic agents designed to alleviate painful bladder syndrome.

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 test results. (For Federally mandated testing, see Item 6 below)

This is a model to induce cystitis or urinary bladder inflammation. Inflammation is commonly associated with pain and discomfort so by design the animal may experience more than momentary mild to moderate pain or discomfort. The purpose of this study is to evaluate this model with the intent of using this method to test new compounds that will limit or alleviate the inflammation or discomfort associated with painful bladder syndrome. The animals by necessity of the scientific study cannot receive any additional anti-inflammatory treatment. All of the animals used for the pilot study continued to eat and drink normally and display no behavioral signs of pain or distress besides an increased frequency of urination. The animals have only demonstrated mild to moderate cystitis and it was determined that it would not be prudent or scientifically sound to treat these animals using opioids.

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):

Agency \_\_\_\_\_ CFR \_\_\_\_\_

### Column E Explanation

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1. Registration Number: 93-R-0067
2. Number 47 of animals used in this study.
3. Species (common name) Rabbit of animals used in the study.
4. Explain the procedure producing pain and/or distress.

The procedure for this study involves the administration of a specific antigen into the vitreous of the eye unilaterally in an animal pre-immunized by subcutaneous administration with the same antigen in order to produce a model for experimental autoimmune uveitis (EAU). Animals are then treated with test compound topically once a day for up to 11 days. At the end of 11 days the animals are euthanized and tissues are collected for evaluation.

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 test results. (For Federally mandated testing, see Item 6 below)

This is a model to induce ocular inflammation. Inflammation is commonly associated with pain and discomfort so by design the animal may experience more than momentary mild to moderate pain or discomfort. The purpose of the study is to evaluate new test compounds that will limit or alleviate the inflammation or discomfort so for most of the animals on study the discomfort is minimal due to the test agents they are receiving. The control animals however by necessity of the scientific study cannot receive any anti-inflammatory treatment. The majority of the animals on this study continue to eat and drink normally and display no behavioral signs of pain or distress. Animals that develop more severe uveitis were treated with buprenorphine daily and supplemented with vegetables for a few days while the inflammation and clinical signs associated with pain subsided, or were removed from the study early and euthanized. Buprenorphine has been demonstrated to have some anti-inflammatory activities (Volker, D., Bate, M., Gentle, R., and Garg, M., Oral buprenorphine is anti-inflammatory and modulates the pathogenesis of streptococcal cell wall polymer-induced arthritis in the Lew/SSN rat, Lab Anim, 34 (2000) 423-429) so the chronic use of this drug for pain or discomfort would be incompatible with the scientific mission of this study. Chronic use of opioids for pain management is also thought to have effects upon appetite and body weight maintenance. For the animals with mild to moderate uveitis with no apparent clinical signs it was decided that it would not be prudent or scientifically sound to treat these animals using opioids.

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):

Agency \_\_\_\_\_ CFR \_\_\_\_\_