

Column E Explanation

1. Registration number: 51-R-0095
2. Number of animals used in this study: 51
3. Species of animal used in this study: hamster
4. Explain the procedure producing pain and/or distress.

Hamsters are infected with *B. burgdorferi* via tick challenge. They are then monitored for development of joint swelling, as visible signs of disease.

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 would interfere with test results.

Pain and/or distress were noted in only 3 of 51 hamsters. Due to the short duration of the infection, pain and distress is not anticipated. The protocol was approved with animals listed in Pain Category D because anesthesia is used to expose hamsters to the pathogen via the bite of infected ticks. Nevertheless, humane endpoints and pain scoring sheets were developed. The 3 animals were euthanized as soon as endpoints reached established threshold. Pain relief was not required because the animals were not expected to feel significant pain.