93-R-0440_FY20_E.pdf

Attachment to APHIS FORM 7023, Federal Fiscal Year 2019/2020

University of California, San Francisco
USDA Registration Number: 93-R-0440

Column E Explanation

The University of California, San Francisco is committed to using laboratory animals in such a way as to minimize pain and discomfort. Attached are explanations of the procedures with the potential for producing pain or distress in animals covered by Subchapter A – Animal Welfare and reported in Column E during the period of 10/1/2019 through 9/30/2020 and the reason anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretations of the research.

1. **Number of animals used in this study:** 47

1a. Species (Common name) of animals used in the study: New Zealand White Rabbit

1b. Explain the procedure producing pain or distress:

Staphylococcus aureus, *Pseudomonas aeruginosa,* and *Klebsiella pneumoniae, and Acinetobacter baumannii* cause pneumonia. Rabbit models reproduce many of the important salient features of these microorganisms as they occur in humans. *S. aureus, P. aeruginosa,* and *K. pneumonia* are also natural pathogens of rabbits as they are known to cause disease outbreaks in rabbit farms. The long-term goal is to dissect mechanisms by which these agents cause different biofilm-related infection types using rabbit models of pneumonia. To establish pneumonia, endotracheal tube placement and agent administration in the trachea are performed on an anesthetized animal. Pneumonia and ventilator-associated pneumonia caused by these bacteria are particularly severe infections, both in rabbits and in humans.

1c. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and distress would interfere with test results. (For federally mandated testing, see item 1d.)

Pneumonia and ventilator-associated pneumonia caused by these bacteria are particularly severe infections, both in rabbits and in humans. Interventions short of euthanasia (e.g., administration of antibiotics) would either invalidate the model by altering the natural progression of the disease which is under study, alter the pathophysiology or host response. Deaths are not unexpected in these infection models, and they cannot be accurately or reliably predicted in the individual animals. Animals may manifest >15% weight loss, become moribund or otherwise unable to access food and water. Animals with these findings will be humanely euthanized.

1d. What, if any, Federal Regulations require this procedure? Cite the agency, the Code of Federal Regulations (CFR) title number and the specific section number

N/A

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Obtained by Rise for Animals.
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