

Column E Explanation**Federal year 2022****Registration Number: 57-R-0005****Research Facility Headquarters address***Office of Animal Care and Use**212 Tucker Hall**310 East Campus Road***Species (common name) of animals used in the study.** Ferret**Number of animals used in this study:** 8.**Explain any procedures causing more than slight or momentary pain and/or distress.****The explanation should be brief, explained in plain terms, and focus on what the animal experienced (for example: seizures, neurological signs, inappetence, lethargy, gastrointestinal distress, etc.)**

Ferrets were infected with *Mycobacterium abscessus*. These 8 ferrets experienced only mild weight loss (5-10%) after infection. Clinical signs of *M. abscessus* could have potentially included lethargy, nasal discharge, weight loss, and respiratory signs.

The reason that pain and distress could not be relived should be science-based and described clearly in plain terms. You may wish to briefly describe procedures that limit pain or distress in Column E animals for context.

It was necessary to maintain the animals while infected in order to understand the model and effects of the infection, both clinical signs, and the immune response. Treatment with tuberculocidal drugs would inhibit effective acquisition of the necessary data. Symptomatic treatment with analgesia or non-steroidal anti-inflammatory agents would similarly mask or alter clinical signs, or alter the immune response

If pain or distress could not be relieved due to regulatory requirements, list the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9CFR 113.102): NA**If the requirement is in accordance with a guidance document, such as an agency notice or harmonization guideline, please provide sufficient information to identify the cited document:** NA

Column E Explanation**Federal year 2022****Registration Number: 57-R-0005****Research Facility Headquarters address***Office of Animal Care and Use**212 Tucker Hall**310 East Campus Road***Species (common name) of animals used in the study.** Ferrets

Number of animals used in this study; 30. However, not all experienced conditions consistent with column E. [2 animals were affected and showed clinical signs of illness consistent with column E, and 28 did not show clinical signs of illness consistent with column E]

Explain any procedures causing more than slight or momentary pain and/or distress.

The explanation should be brief, explained in plain terms, and focus on what the animal experienced (for example: seizures, neurological signs, inappetence, lethargy, gastrointestinal distress, etc.)

Ferrets were infected with the influenza virus. Some virus strains generally do not cause signs of illness, and some virus strains can cause signs of illness. Ferrets that experience signs of illness may experience the flu-like symptoms of sneezing, nasal discharge, fever, lethargy, malaise, inappetence, weight loss, and rarely, diarrhea. With some strains (highly pathogenic influenza) neurological signs such as seizures, ataxia, or paresis or paralysis are possible. Ferrets that develop neurological signs are euthanized promptly to alleviate pain/distress. Other humane endpoints are also employed to minimize pain or distress.

The reason that pain and distress could not be relived should be science-based and described clearly in plain terms. You may wish to briefly describe procedures that limit pain or distress in Column E animals for context.

Clinical signs cannot be immediately treated, because the vaccines' or antiviral treatments' levels of protection and recovery must be assessed. In addition, analgesics cannot be used because they are known to affect inflammation and immune responses, and may alter critical data. In addition, such treatment may alter the humane endpoints, which are important data to determine the level of recovery.

If pain or distress could not be relieved due to regulatory requirements, list the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9CFR 113.102):
NA

Agency _____ CFR _____

If the requirement is in accordance with a guidance document, such as an agency notice or harmonization guideline, please provide sufficient information to identify the cited document: NA

Column E Explanation**Federal year 2022****Registration Number: 57-R-0005****Research Facility Headquarters address***Office of Animal Care and Use**212 Tucker Hall**310 East Campus Road***Species (common name) of animals used in the study.** Ferrets

Number of animals used in this study; 232. However, not all experienced conditions consistent with column E. [25 animals were affected and showed clinical signs of illness consistent with column E, and 207 did not show clinical signs of illness consistent with column E]

Explain any procedures causing more than slight or momentary pain and/or distress.

The explanation should be brief, explained in plain terms, and focus on what the animal experienced (for example: seizures, neurological signs, inappetence, lethargy, gastrointestinal distress, etc.)

Ferrets were infected with the influenza virus. Some virus strains generally do not cause signs of illness, and some virus strains can cause signs of illness. Ferrets that experience signs of illness may experience the flu-like symptoms of sneezing, nasal discharge, fever, lethargy, malaise, inappetence, weight loss, and rarely, diarrhea. With some strains (highly pathogenic influenza) neurological signs such as seizures, ataxia, or paresis or paralysis are possible. Ferrets that develop neurological signs are euthanized promptly. Other humane endpoints are also employed to minimize pain or distress.

The reason that pain and distress could not be relieved should be science-based and described clearly in plain terms. You may wish to briefly describe procedures that limit pain or distress in Column E animals for context.

Clinical signs cannot be immediately treated, because the vaccines' or antiviral treatments' levels of protection and recovery must be assessed. In addition, analgesics cannot be used because they are known to affect inflammation and immune responses, and may alter critical data. Also, such treatment may alter the humane endpoints, which are important data to determine the level of recovery.

If pain or distress could not be relieved due to regulatory requirements, list the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9CFR 113.102):

NA

Agency _____ CFR _____

If the requirement is in accordance with a guidance document, such as an agency notice or harmonization guideline, please provide sufficient information to identify the cited document: NA