

**Column E Explanation**

FFY 1 October 2011 – 30 September 2012

Registration Number: 61-R-0001

**Protocol 09092**

- a. *Number of animals used in this study:* 12
- b. *Species (common name) of animals used in this study:* Ferret
- c. *Explanation of the procedures producing potential pain and/or distress:* Induction of avian influenza infection with flu-like clinical signs, including nasal discharge, ocular discharge, and lethargy.
- d. *Scientific justification why pain and/or distress could not be relieved, with methods used to determine that pain and/or distress relief would interfere with test results:* By the nature of the studies, animals must show signs of infection and possibly disease to recreate a model for testing the efficacy of potential treatments. Some animals are likely to receive relief from novel antiviral drugs or prevention of disease from novel vaccines that are the focus of this research. Other than fluid therapy, control groups will not receive treatment for influenza infection with drugs that would interfere with the natural course of influenza infection so that results may be compared with treatment groups. Alternatives to these studies were sought using literature database searches.
- e. *Federal regulations requiring these procedures (agency, CFR):* N/A

**Exceptions to Standards and Regulations**

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**Red-Light-Rearing**

*Description:* In one study, animals are reared from birth in a standard animal housing room illuminated by red light only to investigate the shaping of visual pathways during development. The level of illumination is comparable to that of normal indoor lighting, only the spectral composition of the light is different. Animals reared or housed in this environment show no behavioral differences from those reared under normal fluorescent lighting.

*Protocol, Species (Number Affected):* 09087, Tree shrew (0)

**Water Regulation**

*Description:* In one study, the amount of water available to animals is limited during the day to encourage their performance in a behavioral study using fruit juice as a positive reward. Adequate amounts of daily fluid intake are verified (and therefore not actually restricted).

*Protocol, Species, (Number Affected):* 09087, Tree shrew (6)

**Pre-surgical Fast**

*Description:* In several IACUC-approved protocols, the PI's stated that animals would be fasted for 20-48 hours prior to surgery to prevent regurgitation and aspiration pneumonia during anesthesia. While this is a "professionally accepted practice" (3.129), these protocols are listed below:

*Protocol, Species, (Number Affected):* 08132, Ox (5); 09062, Ox (0); 09103, Ox (0); 10055, Ox (0); 10110, Ox (0); 10120, Ox (0); 10120, Sheep (0); 11014, Ox (3); 11087, Ox (26); 11119, Ox (3)

**Tethering**

*Description:* Several protocols require that animals remain tethered to the front of their primary enclosure to reduce the potential for dislodging percutaneously externalized catheters and monitoring cables. Although this tether allows normal eating, drinking, standing, lying down, and other normal postural movements, it does prevent turning around, and is therefore considered an exception to USDA Regulations. Note that the animals are acclimated to this housing and monitored intermittently throughout the workday and continuously after-hours by specially-trained staff.

*Protocol, Species, and Number Affected:* 09062, Ox (0); 09080, Ox (0); 09103, Ox (0); 10055, Ox (0); 10110, Ox (0); 10120, Ox (0); 10120, Sheep (0); 11014, Ox (3); 11077, Ox (6); 11087, Ox (26)

**Space Requirements**

*Description:* In one protocol, just prior to farrowing sows are housed in a pen modified to prevent crushing of pigs yet maintaining their ability to nurse. Floor space in the farrowing pen is limited and does not allow the sow to turn around. Once farrowing is complete and the pigs are nursing well, the floor space for the sow is progressively increased to the standard size.

*Protocol, Species, and Number Affected:* 11006, Swine (25)