

Attachment to APHIS FORM 7023

Summary of Exceptions to Regulations and Standards

Vanderbilt University Medical Center 63-R-0129

October 1, 2021 to September 30, 2022

1. The IACUC approved the exception to the provision of food to dogs. Dogs are fasted for 18 to 23 hours prior to performing a 3 to 10-hour metabolic study. This is the minimal time needed to ensure that all digestion of previous meals has occurred and there are no metabolites in the portal vein system. The following number of animals were utilized under this exception during the reporting period:

Species Used: Dog
Number Used: 87

2. The IACUC approved the exception to the provision of food for dogs that is uncontaminated, wholesome, palatable, and of sufficient quantity and nutritive value to maintain the normal condition and weight of the animal. Animals are fed a high fat and carbohydrate diet to replicate glucose intolerance in humans. The animals may be fed this diet for 6 to up to 16 weeks. The following number of animals were utilized under this exception during the reporting period:

Species Used: Dog
Number Used: 36

3. The IACUC approved the exception to the provision of food for dogs that is uncontaminated, wholesome, palatable, and of sufficient quantity and nutritive value to maintain the normal condition and weight of the animal. Animals are fed a diet higher in fat, carbohydrate, and protein, but lower in methionine and deficient in choline to develop a fatty liver model. The animals may be fed this diet for 8 weeks. Although the exception was approved, no animals underwent this exception during the reporting period.

4. The IACUC approved the exception to the provision of food for swine that is uncontaminated, wholesome, palatable, and of sufficient quantity and nutritive value to maintain the normal condition and weight of the animal. Animals are fed a high fat diet to induce hypercholesteremia resulting in mild atherosclerotic changes in the intima, a condition that is common in the human coronary artery bypass patient population. The animals are fed this diet for 35 to 95 days dependent upon study group. Although the exception was approved, no animals underwent this exception during the reporting period.

5. The IACUC approved the exception to the provision of food for gerbils that is uncontaminated, wholesome, palatable, and of sufficient quantity and nutritive value to maintain the normal condition and weight of the animal. Animals are fed a high-salt, or low-iron, or high-salt and low-iron diet to determine how the levels of these nutrients influence a bacterium (*Helicobacter* sp.) associated with human diseases such as ulcers and stomach cancers. The animals are fed the diets for a maximum of six months. The following number of animals were utilized under this exception during the reporting period:

Species Used: Gerbils
Number Used: 265

6. The IACUC approved the exception to the provision of food for gerbils that is uncontaminated, wholesome, palatable, and of sufficient quantity and nutritive value to maintain the normal condition and weight of the animal. Animals are fed diets that are iron-depleted or iron-repleted to measure the effects of iron deficiency on gastric carcinogenesis in humans. The animals may be fed this diet for up to 39 weeks. Although the exception was approved, no animals underwent this exception during the reporting period.
7. The IACUC approved the exception to provision of space requirements for sheep. Animals are maintained in a stanchion that permits the animal to express many of their natural postures, including eating, drinking, standing, and lying down to rest or sleep. Mobility is limited only to turning around within the device which prevents chewing, entangling, or dislodging the arterial and venous lines and cannulae. Animals may be in the stanchion for up to 30 days. The following number of animals were utilized under this exception during the reporting period:

Species Used: Sheep
Number Used: 4

8. The IACUC approved the exception to provision of space requirements for swine. Animals are maintained in a study cage that permits the animal to express many of their natural postures, including eating, drinking, standing, and lying down to rest or sleep. Mobility is limited only to turning around within the studying cage which prevents chewing, entangling, or dislodging the cannula. Animals may be in the study cage for up to 5 days. Although the exception was approved, no animals underwent this exception during the reporting period.
9. The IACUC approved the exception to the provision of water for rabbits that is uncontaminated, wholesome, palatable, and of sufficient quantity and nutritive value to maintain the normal condition and weight of the animal. Animals are provided a test drug in the drinking water for up to 28 days to inhibit the development of intimal hyperplasia after vein graft surgery. Although the exception was approved, no animals underwent this exception during the reporting period.