

Attachment to APHIS FORM 7023

**Summary of Exceptions to Regulations and Standards**  
Vanderbilt University Medical Center 63-R-0129  
October 1, 2018 to September 30, 2019

1. The following protocols involve an IACUC-approved exception to the provision of food to dogs: M1600083 and M1700148. Dogs are fasted for 42 hours prior to performing a metabolic study. This is the minimal time the experimental techniques and methods allow the investigators to assess significant changes in gluconeogenic rates. Although the exception was approved, no animals underwent this exception during the reporting period.
2. The following protocols involve an IACUC-approved exception to the provision of food to dogs: M/15/168, M/15/180, M1600018, M1600083, M1600142, M1600196, M1600197, M1700018, M1700063, M1700065, M1700145, M1700148, M1800076, M1800108 and M1900042. 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 protocols utilized this exception during the reporting period:

M1600018: Species Used: Dog (*Canis lupus*)  
Number Used: 13

M1600083: Species Used: Dog (*Canis lupus*)  
Number Used: 5

M1700065: Species Used: Dog (*Canis lupus*)  
Number Used: 2

M1700148: Species Used: Dog (*Canis lupus*)  
Number Used: 31

M1800108 Species Used: Dog (*Canis lupus*)  
Number Used: 5

3. The following protocols involve an IACUC-approved 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: M/15/180, M1600083, M1600142, M1600197, M1700018, M1700063 and M1700148. Animals are fed a high fat and carbohydrate diet to replicate glucose intolerance in humans. The animals are fed this diet for either 9 weeks or 16 weeks. The following protocol utilized this exception during the reporting period:

M1700148: Species Used: Dog (*Canis lupus*)  
Number Used: 9

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4. The following protocols involve an IACUC-approved 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: M1600229 and M1900110. 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 the entirety of the study. Although the exception was approved, no animals underwent this exception during the reporting period.
5. The following protocol involves an IACUC-approved 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: V/16/007. Animals are fed a high-zinc or -iron, or low-zinc or -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 two to four weeks prior to infection and for the duration of the study. Although the exception was approved, no animals underwent this exception during the reporting period.
6. The following protocol involves an IACUC-approved 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: M1700055. 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 maximum of six months. Although the exception was approved, no animals underwent this exception during the reporting period.
7. The following protocols involve an IACUC-approved 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: M/05/354, M1600067 and M1600264. Animals are fed diets that are iron-depleted or iron-replete to measure the effects of iron deficiency on gastric carcinogenesis that may lead to gastric cancers in humans. The animals could be fed this diet for up to 39 weeks. The following protocol utilized this exception during the reporting period:

M1600067: Species Used: Gerbil (*Meriones unguiculatus*)  
Number Used: 5

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