SUMMARY OF EXCEPTIONS

IACUC-Approved Departure (Housing Space): This is a breeding colony of hairless guinea pigs. We took over this breeding colony from Charles River Labs (CRL) when they retired this strain. For success of the breeding colony we follow CRL's SOP. The guinea pigs are grouped in harems of a maximum of 6 females to 1 male per cage. The cages have interior dimensions of 25"W x 25"D x 9 1/2" H, which is adequate floor space for 6 guinea pigs over 350 grams according to the Guide. While the harems are being bred, they can have up to 7 guinea pigs in 1 cage with the addition of the male, but this is a temporary condition. Additionally, any pups born add to the number of guinea pigs in the cage. Pups stay with the harem for up to 1 week before they are removed and put into their own cage.

Reason for Departure (Animal Welfare): We & CRL found that alloparenting contributes to the health of the pups, so removing pregnant dams prior to pregnancy, while in strict adherence with the Guide, would actually be detrimental to the welfare of the pups. We also found that removal of pups before 1 week increases the death rate in litters, despite their precocial nature.

Species and Number Affected: 482 Hairless Guinea Pigs

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IACUC-Approved Departure (Housing Space): This study is to investigate the toxicological effects of chemical agents of the cholinesterase inhibitor class by whole-body aerosol exposure in minipigs. The housing space guidelines for pigs less than 15 kg is 8 square feet. However, due to the dimensions of the recovery area of the glovebox, the cage in which the pig will be maintained for 72 hours post-exposure cannot be larger than 2' W x 2' L (6 square feet area). While the cage size is less than the recommended area for housing, the pig will have sufficient room to turn around and move freely within the cage. Additionally, food will be restricted the day prior to whole-body aerosol exposure; otherwise, food will be available ad libitum.

Reason for Departure (Scientific): In order to develop a defensible human estimate, data from as many animal models as possible is necessary (rodent, non-rodent, and a higher order species). Whole-body aerosol studies with compounds in this class were completed with a guinea pig and rabbit. The toxicity values generated in this study from the minipig will serve as the higher order species for modeling toxicity to the soldier. This study will provide useful info for the preparation of robust human exposure estimates and important mechanistic data that may aid in the development of medical countermeasures. Feeding animals prior to aerosol exposure would introduce an additional uncontrolled variable into the exposures scenario.

Species and Number Affected: 16 Minipigs