Virginia Commonwealth University USDA Annual Report FY 2019

Registration Number: 52-R-0124 Customer ID Number: 493

Description of Exceptions to Applicable Regulations

- The IACUC has approved one exception (13 rhesus macaques affected) that pertains to cage size for non-human primates. It has allowed a cage height of 30" to 31.5" (cages taper from front to back) for rhesus macaques up to 15 kg in weight. The "Guide" recommends a cage height of 32" for Group four animals. The design of the cage compensates for the height difference by providing 9 square feet of floor space for one animal rather than the 6 square feet recommended. Multiple veterinary staff report that in their opinion there is no impact on the animals' physiological or psychological well-being.
- The IACUC has approved a Non-Human Primate (NHP) protocol for an exception (23 NHPs affected) to the standard 2-week cage wash interval. Cage washing can disrupt chronic experiments for two reasons. First, NHPs have to be disconnected from drug infusion equipment while they are transferred from one cage to another. This will interrupt delivery of treatment medications. Second, NHPs are anesthetized with the anesthetic ketamine to enable their transfer from one cage to another. Ketamine is an antagonist at NMDA (N-methyl-D-aspartate) type glutamate receptors, and this drug can disrupt learning or interact with treatment drugs. To prevent cage-wash related disruption of chronic treatment studies, the PI requested permission to wash cages at intervals consistent with their studies (i.e. during recovery periods) and at intervals up to 1 month. An added complication is that NHPs are housed in racks holding two cages each. Accordingly, cage washing is least disruptive when it can be accomplished at a time when both NHPs on a rack are in a recovery period. When the cage wash interval exceeds a two-week interval, the PI staff will take steps to assure as clean a cage as possible.