Personnel qualifications.

Inadequate training of animal husbandry staff regarding monitoring the health of gerbils led to three gerbils dying and two gerbils becoming ill and requiring supportive care. A total of 28 gerbils arrived on site March 28, 2023 and were weighed and evaluated by a clinical veterinarian. All gerbils appeared healthy upon arrival. During their acclimation period, husbandry staff were responsible for daily observations of each animal to ensure they were healthy. On April 4, 2023, research staff came in to perform initial weights for the study and found one female and one male gerbil dead in their cages. One male gerbil was severely ill and immediately euthanized, and two female gerbils required immediate supportive care and ultimately recovered. The following day, all husbandry staff underwent extensive training on April 5, 2023 which addressed daily monitoring and clinical signs of disease to look for in gerbils. The IACUC investigation into this adverse event concluded that prior to the adverse event, the husbandry staff were inadequately trained to recognize abnormal behaviors and health in gerbils. Additionally, not all husbandry staff that provided care during this time frame had received hands-on training for this species.

Appropriate training of all personnel responsible for the husbandry and health of a species is critical to ensure that daily observations are performed adequately and can recognize signs of distress or disease in animals quickly to implement interventions.

Correct by July 7, 2023 by ensuring that adequate training and instruction is made available and that the qualifications of personnel are reviewed with sufficient frequency to maintain adequate animal welfare and ensure compliance with sections 2.31 and 2.32 of the Animal Welfare Act.

This inspection and exit interview were conducted with multiple facility representatives.

Additional Inspectors:

Kristina D'Apice, VETERINARY MEDICAL OFFICER
## Species Inspected

<table>
<thead>
<tr>
<th>Count</th>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
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<tbody>
<tr>
<td>000000</td>
<td>Meriones unguiculatus</td>
<td>MONGOLIAN GERBIL</td>
</tr>
<tr>
<td>000029</td>
<td>Equus caballus</td>
<td>DOMESTIC HORSE</td>
</tr>
<tr>
<td>000041</td>
<td>Sus scrofa domestica</td>
<td>DOMESTIC PIG / POTBELLY PIG / MICRO PIG</td>
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<td>000048</td>
<td>Cavia porcellus</td>
<td>DOMESTIC GUINEA PIG</td>
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<td>000004</td>
<td>Mesocricetus auratus</td>
<td>SYRIAN / GOLDEN HAMSTER</td>
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<td>000122</td>
<td><strong>Total</strong></td>
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</tbody>
</table>
July 7, 2023

Robert M. Gibbens, D.V.M.
Animal Care
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
2150 Centre Avenue, Building B, Mailstop #3W11 Fort Collins, CO 80526-8117

RE: Corrective actions

Dear Dr. Gibbens,

During the recent USDA-APHIS-AC inspection held at Virginia Tech (Virginia Polytechnic Institute & State University, Registration# 52-R-0012, Customer# 492) on July 5-6, 2023, the VMOs, Drs. Perez-Baum and D’Apice, cited our institution for the following issue in the inspection report (dated July 5, 2023):

2.32(b) Critical
Personnel qualifications.

Inadequate training of animal husbandry staff regarding monitoring the health of gerbils led to three gerbils dying and two gerbils becoming ill and requiring supportive care. A total of 28 gerbils arrived on site March 28, 2023 and were weighed and evaluated by a clinical veterinarian. All gerbils appeared healthy upon arrival. During their acclimation period, husbandry staff were responsible for daily observations of each animal to ensure they were healthy. On April 4, 2023, research staff came in to perform initial weights for the study and found one female and one male gerbil dead in their cages. One male gerbil was severely ill and immediately euthanized, and two female gerbils required immediate supportive care and ultimately recovered. The following day, all husbandry staff underwent extensive training on April 5, 2023 which addressed daily monitoring and clinical signs of disease to look for in gerbils. The IACUC investigation into this adverse event concluded that prior to the adverse event, the husbandry staff were inadequately trained to recognize abnormal behaviors and health in gerbils. Additionally, not all husbandry staff that provided care during this time frame had received hands-on training for this species.

Appropriate training of all personnel responsible for the husbandry and health of a species is critical to ensure that daily observations are performed adequately and can recognize signs of distress or disease in animals quickly to implement interventions.
Correct by July 7, 2023 by ensuring that adequate training and instruction is made available and that the qualifications of personnel are reviewed with sufficient frequency to maintain adequate animal welfare and ensure compliance with sections 2.31 and 2.32 of the Animal Welfare Act.

Corrective measures instituted:

ARCD management has been developing an enhanced training program with a rolling implementation for USDA regulated species. The enhanced training program consists of the development of guidance document training forms called DOPS (Direct Observation of Procedures and Skills), that act as reference documents for approved ARCD trainers on topics that must be covered to show a trainee is versed in that particular topic. DOPS are harmonized across the Animal Care and Resources Division, and upon completion of the enhanced training, trainee documentation is completed through the ARCD staff training form.

Since May 2023, retraining under the enhanced training program, including husbandry, health, behavior and handling, has been completed and documented for ARCD staff in two species. Implementation of the enhanced training for additional species is in the process of being scheduled.

Extensive hands-on retraining of ARCD personnel on the daily observation for normal activity, behavior, health and well-being was provided on April 5, 2023 as stated in the inspection report dated July 5, 2023. Gerbils are intermittently housed at Virginia Tech. Gerbil training using the DOPS process will be implemented with the next delivery and include:

1. Supervisor scheduling and performing the husbandry training the day gerbils arrive;
2. Supervisor scheduling the veterinarian to perform the health/behavior/handling training; and
3. Veterinarian performing the health/behavior/handling training, the day gerbils arrive.

Virginia Tech is committed to protecting the welfare of animals, we appreciate the opportunity to correct this citation and respectfully request the correspondence is documented in our record.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Daniel Sui, Ph.D.
Senior Vice President for Research & Innovation
Virginia Tech Institutional Official