

# Temporary housing for hamsters

Jeanie Cooley was collecting fluid samples from catheterized hamsters that were housed in the Great Eastern University animal facility. It took her about 15 minutes to collect the samples, 10 minutes to transport the samples to her lab and another 15 minutes to prepare the samples for freezing. An hour later she began the entire process again. After four days of 12-hour cycles of running back and forth, she was exhausted and submitted a protocol amendment to the IACUC.

The amendment stated that three hamsters would be housed in Cooley's lab for no more than four days, the maximum needed sample collection time. The animals would be kept in three separate cages, all placed inside a large, custom-made, transparent plastic box that she had brought from her former institution. The box had a small ventilation fan that worked with a thermostat, ventilation holes, a 15-watt bulb with an automatically controlled light

cycle and a small humidifier to be used only if needed. Cooley said she would open the box a few times a day to observe the animals and collect samples. At night, the lab lights would be turned off but a red task light was available for her to use.

The IACUC reviewed Cooley's written request, but before making a final decision, the committee sent an IACUC member and an animal facility supervisor to observe Cooley's lab and the box and report on their findings. The lab was a typical research lab used by multiple investigators, with Cooley's bench located toward the middle of the lab. The animal holding box was placed on a table in a work alcove of the lab. The alcove was separated from the main lab by a floor-to-ceiling light-proof curtain. Emergency power was available in the alcove. The lab's heat was lowered to 68 °F at night, and its air flow was reduced to six changes per hour. Animal facility personnel would observe the animals daily.

The report sent back to the IACUC indicated that no potential regulatory problems were found. But when the amendment went to designated member review, one of the reviewers thought that the proposed changes were more for convenience than for scientific necessity. He implied that if Cooley did not have the resources to do the study in the animal facility, then it should not be done at all. Furthermore, the IACUC office was unsure if the proposed amendment would create a new animal facility or if it constituted an IACUC-approved deviation from the recommendations of the *Guide for the Care and Use of Laboratory Animals*<sup>1</sup> that had to be included in the semiannual report. What are your opinions on this problem facing the Great Eastern IACUC?

1. Institute for Laboratory Animal Research. *Guide for the Care and Use of Laboratory Animals* 8th edn. (National Academies Press, Washington, DC, 2011).

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## RESPONSE

### A new facility and a deviation

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It's both a new animal facility and a deviation from the recommendations of the *Guide for the Care and Use of Laboratory Animals* (the *Guide*)<sup>1</sup>. Hamsters are a USDA-regulated species, and housing them in Cooley's lab for up to four days would create an animal study area as defined by the Animal Welfare Act and Regulations (AWARs)<sup>2</sup>. As such, the Great Eastern University IACUC would be responsible for inspecting the area, as is required for all animal areas, during the semiannual facility inspection. The scenario states that

an IACUC member and an animal facility supervisor were sent to observe Cooley's lab and describe their findings. If the animal facility supervisor isn't a member of the Great Eastern University IACUC, then this inspection would not meet the requirements of the AWARs for conducting evaluations of the research facility. This requirement states, "The IACUC may use subcommittees composed of at least two Committee members and may invite ad hoc consultants to assist in conducting the evaluations..."<sup>2</sup>. The scenario provides some details of the inspection's findings but doesn't address certain requirements of an animal area such as food storage, water, temperature control (to prevent over-heating), documentation of temperature and humidity levels, cage space requirements, documentation of husbandry procedures or sanitization of the area including the animal caging. Reducing

the air flow to six changes per hour is a deviation from the recommendations of the *Guide*, which lists an acceptable range of 10–15 fresh air changes per hour in animal housing rooms<sup>1</sup>.

The limited information provided in this scenario creates additional questions that the Great Eastern University IACUC must address before it can provide approval for this protocol amendment. Would the small ventilation fan used in the box create a noise issue for the animals? Is the number of hours of light provided by the 15-watt bulb appropriate for hamsters? Does the light bulb provide sufficient illumination (lux) for hamsters? Does the floor-to-ceiling light-proof curtain used to separate the hamsters from the main lab also reduce noises from the main lab? What is the temperature setting during the day, and is this within the acceptable