

## **WVU IACUC Guideline: Guidelines for Afterhours Work Within OLAR Vivaria**

### **Purpose**

The establishment of an appropriate photoperiod is essential to the animal's overall health and normal physiological function. The Guide for the Care and Use of Laboratory Animals states "Photoperiod is a critical regulator of reproductive behavior in many animal species (Brainard et al. 1986; Cherry 1987), so inadvertent light exposure during the dark cycle should be minimized or avoided." Studies have demonstrated that exposure of animals to light during their normal dark cycle can have widespread physiological, reproductive, and behavioral impacts. It is important to be aware of potential light exposure when entering the animal housing rooms during the dark cycle. Exposure to light at night within the animal facilities can potentially lead to changes in research outcomes. The IACUC recognizes that some projects may require after hours work. However, it is important that appropriate steps are taken to mitigate impact on other ongoing research projects.

### **Considerations**

1. If afterhours work (6PM -6AM) is required for your project, please reach out to the OLAR husbandry managers to discuss housing options and needs. If possible, these cages should be placed in a designated room separate from other research projects.
2. All vivaria housing rooms have a 12/12 light cycle which lights come on at 6AM and go off at 6PM.
3. Animal housing rooms at HSC are equipped with a red-light feature for afterhours entry.
  - a) If your housing room is not equipped with a red light, a red-light flashlight should be used.
4. The animal transfer stations are NOT equipped with red lights and the lights on this equipment should not be turned on during the dark cycle.
  - a) Using the procedure rooms for all after hours work is recommended.
5. The light entering the room from the hallway should be minimized and the doors cannot be held or propped open. If possible, the hallway light should be turned off prior to entering the room to limit the exposure to extraneous white light (dependent on building/housing location).
  - a) Recommend discussing with husbandry manager to determine best plan for your location.
6. Instructions are posted in the vivarium to describe proper entry procedures after hours based on room and location.
7. Non-standard animal housing room light cycles
  - a) Based on research needs some animal housing rooms may be maintained with light cycles that depart from the standard 12/12 (6AM-6PM) light cycle.

- b) Requests to change the light cycle must be to the OLAR husbandry management. IACUC approval may be required prior to implementation of changes.
- c) Animal housing spaces with variations to the light cycle should have signage describing the room light cycle on the outside of the door. All individuals entering the room during the dark cycle should follow the recommendations described above.

### **References**

1. <https://www.intl-lighttech.com/sites/default/files/pdf/tech-paper/ILT1400-Animal-Facility-Light-at-Night-Article.pdf>
2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6062441/pdf/nihms962624.pdf>