Institutional Biosafety Committee Meeting
October 13, 2025
3:30 pm – Bruner Hall of Science 326

Attending: Nuxoll, Abbey, Harding, Krohn, Betty Jacques, Chris Waples
Absent: Drew Prososki, Alison Klein, Jeramie Ellis

Jacques called meeting to order at 3:30pm

Discussion of Protocols

Keith Geluso – UNK-00001542: BIOL 435/835 Herpetology Field Trip IBC
This is a class protocol to allow me to take Biol 435/835 Herpetology students into the field to learn how to capture and handle wild caught reptiles and amphibians. Occasionally, I will bring an individual back to the university to show species now observed on field trips. Additionally, people bring herps to me that I too will also show to students in class.

Discussion

- Discussion about whether wild herpetological species would be safe in class
    - Conclusion: As long as students are not touching the animals
- Discussion of soap/germ-x
    - Conclusion: As long as Germ-x is used
- Discussion of disinfection of PPE (gloves)
    - Conclusion: Should be managed between sites
- Discussion of contact time for disinfectants
    - Recommendation: Add "used in a manner consistent with use label"

Abbey (Harding) moved to approve, pending correction of identified concerns. Approved: 4-0

Nicholas Hobbs – UNK-00001545: Effect of Food Insecurity on Anxiety-like Behavior of Mice
The lack of sufficient food for a healthy, active lifestyle, or food insecurity, has been shown to affect not only a person's physical health, but their mental health as well. Disorders associated with an individual's mental health, such as depression and anxiety, often appear around puberty, suggesting that gonadal hormones are involved in mediating these disorders. However, it is unclear how these two factors (food insecurity and gonadal hormones) interact to affect anxiety. As such, the goal of the proposed set of experiments is to examine the interaction between food insecurity and gonadal hormones on anxiety-like behavior in peripubertal mice.

Discussion

- Question about whether the associated protocols have been approved by the IACUC
    - Waples confirmed that all associated protocols have been previously approved.
- Jacques will add a microtome SOP, if not already present

Abbey (Krohn) moved to approve. Approved: 4-0

Haiwei Lu – UNK-00001543 – Agrobacterium-mediated plant transformation

This project uses Agrobacterium tumefaciens to transform the poplar clone 717 and to evaluate the efficacy of a green fluorescent protein variant as a visual marker in poplar. We aim to produce approximately 10 individual transformation events for downstream molecular analysis and phenotypic evaluations.

Discussion

- Jacques clarified that the bacterium of interest in this study is typically a BSL1, but because it has been modified, qualifies as BSL2
- The poplar specimens cannot reproduce
    - Not sexually mature
    - Only clones females
    - Sterilizes the specimens
- Some BSL2 changes needed for space prior to initiation of project.
    - Self-closing mechanism
    - Adjust locks to ensure secure access

Abbey (Nuxoll) moved to approve, pending BSL2 lab updates. Approved: 4-0

Jacob Cooper – UNK-00001548 – Specimen preparation for birds

[Project 1: collection of birds]. Deceased birds salvaged from different conditions will be brought to UNK to be turned into specimens for the UNK collection. Specimens will be birds that died of natural causes (e.g., vehicular collisions, window strikes) or as part of other research projects occurring at UNK. Birds that are suspected to have died of illness, especially waterfowl and gamebird, will be kept in plastic bags and either immediately incinerated or turned over to Nebraska Game & Parks for testing. Birds will be, either before or after being prepped as a specimen, frozen for one week to ensure any associated parasites and fauna are killed.

[Project 2: Specimen preparation.] Specimen preparation will largely follow Hall (1967), which is attached to this protocol as an appendix. In brief, a scalpel is used to cut the birds abdomen along the keelbone. Dull probes and scissors are used to remove the body, leaving minimal bone and tissue in the skin as support for the beak, skull, wings, and legs. The bird is then stuffed with a wooden stick and a cotton body. Cornmeal and/or sawdust is used to control for blood during the skinning process. Specimens are thoroughly dried before being placed in the collection. When properly prepared and cared for, no chemicals are needed to preserve specimens indefinitely. In rare cases, naphthalene may be needed. Equipment will be thoroughly washed with Dawn dish soap and hot water. Folks will be required to wash their hands before leaving. Bodies and used cornmeal/sawdust will be disposed of either via autoclave or incineration.

[Project 3: Genomic samples.] Genomic samples will be frozen in small tubes at -80C. Samples will eventually be transferred to another institution, such as University of Wyoming or University of Nebraska-Lincoln, where better facilities exist for managing the genomic resources.

Discussion

- Cooper has previously argued that the work qualifies for BSL2 protection
- Museum protocols at UNL does not utilize any such efforts

- Protocol includes plan to freeze specimens, which would kill parasites but not viruses or bacteria
- Jacques noted that the project is intended to include birds that are not common carriers of avian flu
    - Investigator has indicated that they would not preserve specimens suspected carrying the virus
- Room noted in protocol may be amended
- Disinfectant should be added

Krohn (Nuxoll) moved to approve. Approved: 4-0

Other Business
Discussion about Robin Harding's retirement and role on IBC.

Jacques adjourned meeting at 4:08pm.