

IACUC - Housing Chamber – Standard Operating Procedures

PI NAME:

Protocol Number(s):

Individual Completing this SOP (Name and email):

Directions: Please fill out the following questions and attach this document to the chamber or in a binder with verification documents near the chamber.

1. Chamber Function:

- a. Type of chamber (hypoxia, temperature controlled, hyperoxia, behavior, etc.). **A separate SOP should be provided for each type of chamber.**
- b. Where is/are the chamber(s) located (building and room number)?
- c. Provide the manufacturer, model, and contact information. Include an electronic copy of the equipment user's manual or link to the manufacturers' website covering that model.
- d. What type of power supply is the chamber connected to? I.e., building standard or emergency power.
- e. What is the air exchange rate/air flow through the chamber? Please provide verification in the form of letter from manufacturer, user's manual (page number included), or independent testing.
- f. What is used to control the lighting, temperature, humidity, and oxygen to the chamber? How does the chamber function?

2. Animal Monitoring

- a. How often are animals health checked? What is the procedure for observing animals for any concerns?
- b. What is the procedure for opening the chamber if LARC staff need to check the animals for any reason?
- c. What is the planned cage change frequency?
- d. What is the maximum cage capacity for the chamber per manufacturer's recommendations or IACUC approval? How many adults and pups will occupy each cage?
- e. What is the IACUC-approved acclimation period for abrupt changes in environmental parameters?

3. Chamber Monitoring and Maintenance:

- a. Describe the monitoring procedures and frequency for the following environmental parameters: temperature, humidity, air exchange rate and ammonia levels. If oxygen or carbon dioxide are manipulated, describe monitoring procedures for those as well.
- b. Describe standard chamber maintenance procedures. How will the chambers be cleaned?
- c. How frequently will cleaning be performed?

- 4. Ammonia Monitoring and Reduction:** If intra-cage ammonia level is over 300 ppm, you must develop a plan to evaluate the impact of ammonia levels on the animals and outline steps to reduce ammonia levels.
 - a. Describe how ammonia levels will be tested in the cage and in the chamber and the frequency of testing.
 - b. Describe the plan to reduce ammonia levels if they are over 300 ppm in the chamber. For example, adding an absorbant material to the chamber, increased cage change frequency or limiting cage number within the chamber.

- 5. Emergency Plan for a system failure:**
 - a. Please provide emergency contact information for at least 2 individuals from the lab.
 - b. How would a power or fan failure be detected?
 - c. How would a system failure impact environmental parameters including temperature, humidity, ammonia, oxygen, or carbon dioxide levels inside the chamber.
 - d. Would a system failure impact environmental parameters in a way that would pose an immediate risk to animal welfare?

- 6. Training lab members on chamber function and procedures:**
 - a. How will all chamber users be trained to use the chamber and follow procedures listed in this document?

- 7. Please provide current date of SOP submission:**