STANDARD OPERATING PROCEDURES
DIVISION OF COMPARATIVE MEDICINE
UNIVERSITY OF SOUTH FLORIDA

TITLE: **Euthanex® SmartBox® Auto CO$_2$ System**
SCOPE: Animal Care Personnel
RESPONSIBILITY: Facility Manager, Supervisor and Technical Staff
PURPOSE: To Outline the Proper Procedures for euthanasia using the
                        Euthanex machine

I.   PURPOSE

1. This SOP outlines the proper procedures to be followed for mouse euthanasia via the Euthanex® SmartBox® System

II.   RESPONSIBILITY

1. It is the responsibility of the Facility Manager and/or Supervisor to ensure that all technical staff performing these methods are adequately trained in the following procedures and these procedures are adhered to.

2. It is the responsibility of the technical staff assigned to euthanasia procedures to read, understand, and follow the procedures outlined below.

III.   PROCEDURE

1. Ensure that the green Flowmeter for individual cage euthanasia is turned off.

2. Check that the White **"Ready"** light is on

3. Turn the three knobs on the front of the chamber to open the door. Knobs must be in a fully horizontal position to open.

4. When the doors are open, the red **"Fault"** light will turn on, indicating the door is open. No gas will flow, and the system will not operate when the door is open.

5. Load the chamber with cages.
   a. Blue Line and static caging- Remove filter top. Wire bar lids need to remain on the cage.
   b. Green Line caging- Remove filter only from filter top. Replace filters prior to sending cages to cage wash.

6. Cages can be stacked on top of each other, offsetting cages so no cage is directly stacked on top of each other. Chamber capacity is approximately 20 standard mouse cages or 3 standard rat cages.

7. After the chamber is loaded, close the door and close the three knobs clockwise to seal

8. **Select Adults or Neonate**s as the age range.

9. Press the **"Start"** button to begin, and the green **"RUN"** button will light up.

10. The white **"Ready"** light will remain on and the green **"RUN"** button indicates the cycle is running.

11. For adult mice, the cycle will load the chamber with CO_2 for 8 minutes. Then the gas is shut off and remains fully charged for 5 minutes. After the dwell period, the exhaust fan starts and purges the chamber for 4 minutes.

12. The red **"STOP"** button can be used at any time to stop the cycle in an emergency. Gas will stop flowing into the chamber.

13. Disinfect the interior of the chamber after each use with Oxivir Tb.

Approved: **Date:**