Location: Queen’s University

Responsibility: Principal Investigators (PI), Research Staff, Veterinary Staff

Purpose: The purpose of this Standard Operating Procedure (SOP) is to describe the procedure for weaning mice.

1. **Introduction and Definitions:** Mice are typically weaned at 21 days old but this is dependent on length of gestation and pup size. Some transgenic and inbred strains are small and may have a better performance if left with the dam for up to 28 days. Weaning after 28 days must be addressed in the animal protocol. Hybrid/outbred strains may be larger and can be weaned at 18 days old under some conditions such as overcrowding. These strains may be sexually mature at three weeks; it is therefore important to wean promptly to avoid possible mating by the father. Gestation in mice is typically 18-20 days, if males are left with females a new litter could be born within 19 days. Older pups must be weaned if a new litter is present and preferably before the new litter is born.

2. **Materials:**
   - 2 clean set-up cages that include wire top, enrichment (house and nesting material), cage card holder, micro isolator lid and water bottle if required
   - Duplicate Green Animal Requisition cards
   - Pen and blank cage card
   - Petri dish
   - Rodent chow

3. **Procedures:**
   **Barrier/Sterile Technique**
   - Place the home cage in the hood along with two sterile clean cages from the presentation rack.
   - Record on the yellow breeding card the date weaned and the number of males and females.
   - Sex weanlings and put males in one box and females in the other. Maximum 4 mice per box.
   - To sex the weanlings, hold at the base of the tail and look at the anogenital space. This distance is greater in the male than the female. A comparison (one in each hand) may be useful.
   - If the mice are small and difficult to sex recheck the following week. This will help to avoid unplanned pregnancy.
Place a few cubes of food on the floor of each cage. If the weanlings are small a petri dish of moist chow and a water bottle may also be provided.

To make moist chow, take the sterile reverse osmosis (RO) water bottle container and the sterile petri dish bag to the hood. Using sterile technique remove a water bottle and a petri dish for use. Put the dish in the weanling’s cage and add one cube of food. Fill the dish with the RO water. The water bottle may then be left on the wire lid.

Within the barrier auto-watering is used. The spigot must be toggled to ensure the weanlings know where to find the water source. A “Check Auto Water” sign is then placed in the cage card holder alerting Animal Care Services (ACS) of the need to toggle for a few days.

The green animal requisition cards are filled out and one card is put on one of the weanling’s cage. The other green card is taken out for the lab to use as a reference when generating cage cards through Topaz. A blank card is labelled with ACR# and all relevant information and placed on the other cage.

The animal cage cards are printed in the ACS main office and be available for pickup. These cards then are placed on the respective boxes by matching up the ACR number.

**Conventional Room Technique**

For mice that are weaned in conventional areas (sterile technique is *not* required) the procedure is the same but is not done in a hood. If the room is not equipped with ventilated racks and auto-watering (micro-isolators) standard water bottles are used. Moist chow is made up the same way, but the petri dishes and water are not sterile.

*Revised: February 28, 2019*