

Neurophenotyping Centre animal facility



STANDARD OPERATING PROCEDURE

OVERCROWDED MOUSE CAGE PROCEDURES

1. Purpose:

The purpose of the Standard Operating Procedure (SOP) is to outline the procedures to be followed whenever an overcrowded mouse cage is identified.

2. Responsibility

- 2.1. The animal attendant or animal health technician who discovers the overcrowded cage is responsible for identifying the cage, filling out the appropriate cards and informing the supervisor of the facility.
- 2.2. The supervisor or designate is responsible for informing the lab contact listed on the cage card or the Principle Investigator if the cage is not dealt with in the appropriate amount of time. The supervisor also is responsible for completing the Overcrowded Cage Log.
- 2.3. Research staff is responsible for separating the animals in the overcrowded cage within the appropriate amount of time.

3. Materials

- 3.1. Cage with bedding
- 3.2. Wire bar lid
- 3.3. Microbarrier top if necessary
- 3.4. Rodent diet
- 3.5. Water bottle or drinking valve
- 3.6. Environmental enrichment
- 3.7. Tape
- 3.8. Peroxygard solution
- 3.9. Bar Code cage card

4. Procedures

4.1 An overcrowded cage is determined by the following factors:

- a) A cage housing more than 5 mice greater than 15 grams.
- b) A cage housing more than 7 mice greater than 10 – 15 grams.
- c) A cage housing more than 10 mice greater than 10 grams.
- d) A cage maximum of 1 male and 2 females (trio breeding) and up to two litters born during the same week until weaning.
- e) A cage housing litters born more than one week apart is considered overcrowded.
- f) A non-vented cage with 1 male & two females who each have more than 6 pups is considered overcrowded & must be separated within two weeks post partum to reduce the humidity level in the cages as the pups get older. Any female can be separated since they both shared nursing the pups while being housed together. Returning the females post-weaning has not been a problem to date.

4.2 Once the cage is deemed to be overcrowded, the attendant or the AHT will identify the overcrowded cage by placing an overcrowded cage card or tab on the cage. Information such as date, time and attendant initials must be recorded.

4.3 The attendant or the AHT will then give a copy of the overcrowded cage card to the facility supervisor upon leaving the animal room.

4.4 The supervisor or designate will attempt to contact the person listed on the cage card to inform them that the cage is overcrowded.

4.5 If the animals have not been weaned within the specified time frame, the staff will wean the animals and **bill the researcher for all costs incurred.**

4.6 Animals must be weaned within these specified time frames:

- a) A weaning deadline of up to a maximum 24 hours (to allow for weekend notification) if it's a matter of being past the average three week weaning date & the pups are all the same age.
- b) Longer weaning times such as 4 -5 weeks may be allowed if the pups are very small (runts) due to particular transgenic lines, strain, etc. In this case the runts can remain with the mother. The larger pups can then be weaned. If all pups are unusually small at 3 weeks they can be weaned at 4 - 5 weeks of age provided that there is no new litter in the cage at the time.
- c) Weaning at three weeks of age will be required if the humidity levels in the cage are abnormally high and are causing housing environmental concerns.

- 4.7 All new cage cards made for the separated weanlings must be filled completely and a bar code corresponding to the protocol under which the animals will be used is to be placed on the cage card as well.
- 4.8 If animal care staff weans or separates animals, they will identify the "original cage" the animals were separated from so the researcher can identify the weanlings to the correct parents.
- 4.9 If a research staff member removes the overcrowded indicator card on the cage without separating the animals, the PI will be informed immediately that they are in non-compliance with CCAC guidelines. Repeated offenses can lead to disciplinary measures recommended by the facility veterinarian or the FACC.
- 4.10 If the contact person is unavailable or does not wean the animals within the time frame specified, the supervisor or designate would then try to contact the principal investigator via e-mail. The PI will be informed of the charges that have been incurred due to animal facility staff intervention.
- 4.11 Animal care or veterinary staff will wean the animals and charge \$40/hr for internal clients and \$60/hr for external clients. Charges will include all time involved with the weaning process such as gathering of supplies and equipment, weaning the animals, preparing new cage cards, contacting personnel and preparing the bill.
- 4.12 The supervisor will record all incidences of overcrowded cages in the facility Overcrowded Cage Log sheet.
- 4.13 When the overcrowded cage card or tab is removed from the cage, the animal attendant should verify that the animals have been weaned. If this is not the case, the attendant should notify the supervisor immediately.

Note: Overcrowded cages relates to the high density of animals within each cage. The above criteria for determining an overcrowded cage are some examples we use to determine the acceptable number of animals per cage. Our goal is to prevent extreme, recurrent overcrowding that affects the animal's environment and health.