**Rodent Weaning**

Last Reviewed: May 29, 2024

 **I. Purpose**
The purpose of this standard operating procedure is to define the Laboratory Animal Resources (LAR) rodent weaning policy and procedures.

**II. Responsibility**
It is the responsibility of all animal users, including investigators, their technicians and LAR staff to wean rodent pups at the proper time to avoid overcrowding in cages.

**III. Weaning Policy**

* All rodent pups should be weaned by 21 days after birth (see special circumstances below).
	+ The gestation period is 21 days for mice and about 22 days for rats.
	+ The day pups are born (found) is day 0, the next day is day 1.
	+ Due to post-partum (after-birth) estrus, female mice and rats can deliver their next litter at the same time the previous litter is ready for weaning.
* A "Special Services Fee" will be assessed if the investigator chooses to have LAR staff perform rodent weans.
	+ Service Fee forms are located on the clipboard on the door of each rodent room.
	+ LAR staff will fill out the date, time, procedure, and their name on the form.
	+ At the end of the month, the Service Fee form is given together with the cage census forms to the IACUC Manager and reviewed before being sent to Budget & Finance for billing.
* If 21 days pass after the birth date of the last litter and LAR staff has not been notified by the PI of special circumstances, LAR will wean the pups on day 23 and charge the Special Services Fee.
	+ A special circumstance in which weaning could be delayed by the PI or AV includes low birth/development weights of certain strains of rodents, large litters, or transgenic mice.
	+ Supplemental food and dry food on the bottom of the cage sometimes helps with small pup growth
* If "pups on pups" occurs, LAR staff will notify PI
	+ Depending on the age of the older pups, and PI permission, LAR Staff might wean the older rodent pups and assess the Special Services Fee after notifying the PI 24 hrs. in advance.
	+ This avoids cannibalism and overcrowding.
* Animal users should notify LAR staff in advance if they choose to have them perform their weans.

**IV. Weaning Procedure**

* Count pups to be weaned.
* Have enough clean cage set-ups to house all weaned pups.
* Separate pups by sex - males in one cage and females in another.
	+ Place no more than 5 mice in one small cage.
	+ If there are more than 5 pups of one sex to be weaned, split the same sex pups evenly between 2 clean cages.
		- Example: Litter of 10, 3 females/7 males, they would be separated as follows 1 box of 3 females + 1 box of 3 males + 1 box of 4 males
* Place a small handful of rodent chow (moisten with water if pups are tiny) in the bottom of the new cage and fill the hopper with dry food; add a water bottle.
* Always put a sticky note on the cage stating "RE-SEX" if you have any doubt of sex.
* Notify LAR staff to monitor small pups and put additional food on bottom of cage.
* Put a cage card on the cage.
	+ Fill out appropriately: parents, date of birth, date of wean, sex, number of animals in box, species, source, PI, and AUP number.
	+ Use the appropriate cards for each investigator.
* Put cages onto their specified stock rack.

**V. Leaving Runts with Female Past Wean Date Policy**

* Runty pups may be left with the female for ***up to one week***. The extended wean date will be written on a post-it note on the cage card. There should always be some food placed on the bottom of the cage in order to help the runt grow and provide additional nourishment to the female.
* After one week, the runt(s) must either be weaned (provided supplemental or soaked “wet” food, as well as dry food on the bottom), or euthanized.
* LAR will remind the PI a day or two in advance when the runts are due to be weaned. If they are not weaned by the extended wean date, LAR will wean them and charge the PI on the Special Service Charge Sheet. Otherwise, if the PI would like the runt(s) to be euthanized and would like LAR to do it for them, they can ask for LAR’s assistance at no charge to them.

**VI. Foster Care**

* Young animals, particularly valuable ones, will be given foster mothers under the following conditions and with PI approval:
	+ Mother death
	+ No maternal instinct
	+ Physical or genetic abnormality that prevents caring for young
	+ Low/no milk production
	+ Impending cannibalism
* Early fostering increases the chances of raising healthy pups
* Always check and confirm with P.I. before fostering, especially when dealing with a colony with multiple strains.
* Two important conditions for successful foster
	+ Litter size close to original birth litter size
		- If the litter(s) are too large, sometimes you can split the foster pups between 2 fosters moms. (Depending on litters sizes, ages, strain, etc.)
	+ Close in age to foster mother's own pups - within 48 hrs is best
* Steps to introduce pups to foster mother (subject to change)
	+ Wear clean gloves
	+ Place pups in foster mother's nest on top of existing pups. Scent transfer is important for acceptance
	+ Check back 2-3 hrs later to see if the pups have been accepted and are nursing.  A different foster mother may be required if the pups are not accepted.