



## Policy 307

### Weaning Rats, Mice and Voles

<b>Responsible Official:</b>	Research Administration
<b>Administering Division/Department:</b>	Research Compliance and Regulatory Affairs / IACUC
<b>Effective Date:</b>	4/6/2022
<b>Last Revision Date:</b>	2/17/2019

**307.1 Purpose:** This policy describes the procedures for weaning rats (*Rattus norvegicus*), mice (*Mus musculus*) and voles (*Microtus ochrogaster*). It applies to all researchers who maintain breeding colonies at Emory and/or obtaining pregnant females, from outside sources, that will give birth at Emory. The purpose of the policy is to minimize adverse events associated with housing newly weaned animals.

**307.2 Training Requirements:** Training is required for all personnel who breed and wean their own mice, rats or voles. Training is available through the Division of Animal Resources (DAR) at both the Yerkes National Primate Center and the Emory University main campus. An online weaning training is required for personnel involved in breeding rats or mice at SOM-DAR prior to protocol approval (<http://www.dar.emory.edu/pi/index.php>). Hands on in person weaning training at Yerkes is done after protocol approval. Please see Emory IACUC Education and Training Policy for details.

**307.3 Delineation of Responsibilities:** It is expected that both laboratory and DAR staff will provide appropriate care to all research animals on an ongoing basis. However, in situations where laboratory staff are breeding and weaning mice, rats and voles, the laboratory is responsible for correctly setting up weanlings in new cages as described below. Once these animals are weaned, primary responsibility for their daily care shifts to the DAR animal care staff. However, as is the case in general, laboratory personnel are responsible for reporting to DAR any animal care issues that they observe as they are conducting other procedures with the research animals.

#### 307.4. Weanling Cage Set Up

##### 307.4.1 Cages

- To prevent overcrowding, mouse, rat, and vole litters are to be weaned between 19 and including 24 days postpartum. Exceptions are allowed, as indicated under the Special Circumstances section below. Regardless, it is the responsibility of the investigator to adhere to maximum cage density policies (see Rodent Colony Management Policy)
- All weanling animals must be placed in a clean, standard rodent cage with food and water.

##### 307.4.2 Water

- Regardless of caging system (static or automatic water), a fresh water bottle must be provided.
- If animals are placed on an automatic water rack, the Lixit® valve should be primed before placing the cage on the rack. A drop of water on the valve will help the animals learn to use the Lixit®.

##### 307.4.3 Food

- The wirebars must be filled with rodent chow appropriate for the particular strain.
- A portion cup must be placed in the bottom of the cage containing moistened rodent chow. The “mush cup” should be prepared by adding an excess of water to a few food pellets of rodent chow so that they become softened for easy consumption. Filtered water from the water bottle must be used, NOT TAP WATER. The wet rodent chow is not necessary for voles but water gel must be added to the newly wean cage.



#### 307.4.4 Verification by laboratory and animal care personnel

- Once the weaning cage is set up, the laboratory member must initial and date a “Newly Weaned” card and insert it with the standard cage card such that it is visible to animal care staff. These cards are provided by DAR (see Appendix A).
- By 5:00 pm on the day following initial set-up, animal care staff must verify that the weaning cage is set up correctly and that the animals appear healthy. If this is the case, then they initial and date the weaning card.
- If the animal care staff finds that the cage has not been set up properly, they will correct the deficiencies upon discovery and initial and date the weaning card. They will then contact the lab and document the corrective care. Charges will apply for this additional care.

#### 307.4.5 Subsequent Care

- Post-weaning, animal care staff will monitor the animals on a daily basis.
- Newly Weaned cards are removed at the discretion of DAR animal care staff (typically at time of water bottle removal, 5-14 days).
- For animals housed on autowater racks, water bottles will remain in cages a minimum of two weeks. Animal care staff will remove bottles once they determine that bottled water is no longer being consumed.
- Requests from laboratories for extended water bottle use will be reviewed by veterinary personnel. Extended use, while necessary for some strains, will result in additional charges (see “Special Circumstances” below).

#### 307.5.Special Circumstances

**307.5.1** The procedures indicated above are the baseline standard for weaning of normal, healthy mouse, vole and rat strains/lines. However, it is understood that not all strains/lines fall within this category; some are more fragile. In these circumstances it is considered best practice for the laboratory staff to work with veterinarian and animal care personnel to develop specific programs of care for these strains. In these instances, the standard of care must be detailed in the IACUC protocol; this may entail amendment of the approved protocol. Charges may apply if additional care is required. Issues to consider when developing a standard of care for a fragile strain/line include but are not limited to the following:

- Age of weaning past 24 days of age
- Length of provision of water bottle past standard of care
- Addition of supplemental food/water sources such as hydration or nutrient gels
- Additional checks by the lab personnel
- Other considerations

**307.5.2 Failure to thrive animals:** If weaning aged animals (24 days old) are too small to be weaned, veterinary personnel should be contacted. Veterinary staff can assess the animals and provide a temporary veterinary weaning extension for individual cages, if appropriate. These weaning extensions will allow the smaller animals to remain with their parent(s) (beyond the typical weaning period) to allow the animals to grow. Veterinary staff will intermittently monitor these cages until weaning can take place. These weaning extensions do not apply to all animals of a particular strain and are not applicable to all animal on a particular protocol (see 307.5.1). The veterinary weaning extension is marked on a cage using a “Vet Exception” card (see Appendix C). This card will be placed and removed at the discretion of the veterinary staff.

**307.5.3 Yerkes DAR Managed Breeding is done by the veterinary technicians.** The same system explained above for laboratory personnel is utilized by the veterinary and animal care technicians. An additional re-verification is performed by the veterinary technicians the day after weaning, by 5:00 pm, and at that time the room log is signed under the designated column for breeding management.



**307.5.4** SOM DAR Managed Breeding Services (MBS) has a related procedure for verification as described in section 307.4.4 with some minor differences since all responsible personnel are members of DAR. The verification procedure for SOM DAR MBS is as follows:

- Once the weaning cage is set up, an MBS member must initial and date a “MBS Newly Weaned” card and insert it with the standard cage card such that it is visible to animal care staff. These cards are provided by DAR to MBS-managed areas only and are red to distinguish them from regular green weaning cards (see Appendix B).
- By 5:00 pm of the day following initial set-up, an MBS member must re-verify that the cage has been set up correctly and that the animals appear healthy. The card must be initialed and dated for a second time by an MBS member in the recheck box.
- MBS is utilizing an online breeding database system called SoftMouse. In order to ensure all weanlings are added to the system, a SoftMouse checkbox has been added to the newly weaned tag. When the weanlings have been entered into the system, this box will be checked so additional team members do not duplicate efforts.
- In special circumstances when mixed sexes are weaned together with veterinary approval, a separation date must be recorded. On or before the separation date, an MBS member must perform the separation and check the ‘separate’ box on the card to confirm completion.

**Contact Information**

<b>Subject</b>	<b>Contact</b>	<b>Phone</b>	<b>Email</b>
Clarification of Policy	Office of Research Compliance and Regulatory Affairs - IACUC	404-712-0734	iacuc@emory.edu

**Revision History**

- Version Published on: 4/7/2022
- Original: 2/6/2014



**Appendix A: Newly Weaned Cage Card (Template):**

<p><b>NEWLY WEANED</b></p> <p>(Initial and date in the boxes)</p>	Lab certify setup	
	DAR check	

**Appendix B: SOM-DAR Managed Breeding Services (MBS) Newly Weaned Cage Card:**

<p><b>MBS</b></p> <p><b>NEWLY WEANED</b></p> <p>(Initial and date in the boxes)</p>	MBS	
	Re-✓	
<input type="checkbox"/> SoftMouse <input type="checkbox"/> Separate by _____		



**Appendix C: Veterinary Exemption Card**

<p><b>Vet Exemption</b></p> <p>PI Name: _____</p> <p>Cage Card #: _____</p> <p>Begin Date: _____</p> <p>Date to Wean: _____</p> <p>Issuer: _____</p> <p><b>This cage is approved for delayed weaning due to small pups/ failure to thrive</b></p> <p><b>Vet Staff Property DO NOT REMOVE</b></p>
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