

## STANDARD OPERATING PROCEDURE

### Environmental Health Monitoring

#### Direct Colony Sampling

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At the discretion of the user, such as when the other methods are not feasible (e.g., quarantine) or necessary, direct colony sampling can be used to replace soiled bedding sentinels while still monitoring colony health. Note that this method is not historic and should be used under the direction of a diagnostic laboratory or veterinarian well-versed in rodent colony health surveillance. These methods can also be used to identify the specific location of a localized infection within a small colony.

#### 1. Frequency of diagnostic sample collection

- a. Samples are collected once every three months (i.e. quarterly) or in quarantine from the resident animal

#### 2. Materials needed:

- a. Gloves
- b. 2-5 ml tubes
- c. Flocked swabs

#### 3. Procedure:

- a. Label tubes with:
  - i. Date
  - ii. Room Number
  - iii. Rack/Blower Number
- b. Identify 10 resident cages for each sample that will be sent. Samples can be divided by rack side, rack, by blower if multiple racks are attached to a single blower. Record the cages from which samples were taken from in case a positive result is obtained.
- c. Collect across different lines and select cages housing newly weaned/young (ideally less than 10 weeks old) animals, if possible. Sampling can either be by randomized selection of up to 10 cages on the rack or strategic sampling (e.g. at least one cage from each of different experimental groups or strains of mice).
- d. Collect a fresh fecal sample from one animal in each identified cage. Pool the 10 fecal pellets.
- e. Use single flocked swabs, swab the entire pelt of all animals within the identified cage. Pool the 10 fur swabs.
- f. Oral swabs that are appropriate for the animals' size may be collected for one animal per cage, but are not necessary. This may increase sensitivity for certain respiratory pathogens.

## Note to User

- As a primary environmental health monitoring (EHM) strategy, this method is less effective for larger colonies.
  - Sensitivity of this method may be increased by also microsampling blood from colony animals.
  - Contact us when first submitting environmental health monitoring (EHM) samples to make sure that the materials and pooling procedures meet the labs acceptance criteria for submission.
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