

University Animal Care Committee Standard Operating Procedure		
Document No: 14.4	Subject: Rodent and Environmental Health Surveillance	
Date Issued: <small>[OBJ]</small> November 30, 2014	Revision: 3	Page No: 1

Location: Queen's University

Responsibility: Animal Care Services Staff, Veterinary Staff

Purpose: The purpose of this Standard Operating Procedure (SOP) is to establish the proper guidelines for monitoring the health status of rodent populations utilizing exhaust air dust. In addition to sampling automatic watering lines and individual rodent testing.

1. Introduction and Definitions: To define the microbial status of rodent colonies, surveillance is conducted for sub-clinical, clinical diseases and opportunistic agents that could jeopardize the validity and reproducibility of research data, complicating its interpretation.

Abbreviations: Principal Investigator **PI**, Exhaust Air Duct **EAD**, Individually Ventilated Caging **IVC**, PCR Rodent Infectious Agent **PRIA**, Laboratory Management Services **LTM**

2. Materials:

- Pink Sticky Swabs (LTM, Charles River Laboratories)
- Oral dry swabs without transport media (LTM, Charles River Laboratories)
- Sterile 100 ml water container with sodium thiosulphate tablet (LTM, Charles River Laboratories)
- Sterile 2 ml snap top vials (LTM, Charles River Laboratories)
- Sterile 5 ml snap top vials (LTM, Charles River Laboratories)
- Tissue forceps
- Scissors
- Alcohol prep pads
- Hydrogen peroxide wipes

3. Procedures:

Exhaust Air Duct Sampling (EAD)

University Animal Care Committee Standard Operating Procedure		
Document No: 14.4	Subject: Rodent and Environmental Health Surveillance	
Date Issued: <small>[08]</small> November 30, 2014	Revision: 3	Page No: 2

- EAD routine testing is performed quarterly.
- IVC racks are sampled by room and rack using EAD swabs and submitted to LTM Charles River Laboratories for PRIA testing.
- To collect sample, detach the horizontal exhaust hose from the vertical exhaust plenum on the IVC rack. Using the “pink sticky swab”, collect dust from the inside of the exhaust plenum where the dust aggregates at the elbow.
- Clip the “Pink Sticky Swab” head and place in a 5ml snap top collection tube.
- Use a new swab on each rack to be tested, pooling a maximum of 5 swabs for one sample submission.
- Label vials with date, room, and rack numbers.
- Store swabs at room temperature, ship overnight via ambient temperature.
- Samples are then submitted to Charles River for environmental Mouse Surveillance plus PRIA panel or Rat Surveillance plus PRIA panel.

PRIA Testing Individual Rodent Sample Collection

- Label vial with date, animal number, strain, and PI.
- Store samples at room temperature, ship overnight via ambient temperature.
- Fecal Samples: collect up to 10 fresh fecal pellets with no bedding material, if needed use tissue forceps and place pellets in either a 2ml snap top vial (mice) 5 ml snap top vial (rats).
- Body/Fur Swab; using the “pink sticky” swab thoroughly swab the fur/skin and perianal area. Clip the swab head and place in vial.
- Oral swabs; use the non-alginate swab with no transport media to swab oral cavity.
- Multiple animals may be screened together by pooling swabs or pooling fecal samples. Never pool swabs and feces together.

Importing & Quarantine of Rodents from Commercial or Non-Commercial Sources

- Commercial- Jackson Laboratories, Charles River Laboratories, Taconic Biosciences.
 - Non-commercial sources include other universities, research facilities and medical institutes (national and international).
-

University Animal Care Committee Standard Operating Procedure		
Document No: 14.4	Subject: Rodent and Environmental Health Surveillance	
Date Issued: <small>[OBJ]</small> November 30, 2014	Revision: 3	Page No: 3

- Health reports of rodents from these sources must be received and approved prior to animal shipment (See UACC Policy on Importation and Exportation of Rodents). Clean mice, as determined by the veterinarian, will be tested using 'PRIA' testing a minimum of 72 hrs' after arrival.

Automatic Watering- Bioburden Water Testing

- Biannually following the schedule of EAD testing for mice and rats or as needed.
 - Water must be shipped within 24 hrs of collection.
 - Using 4 sterile water containers with sodium thiosulphate tablets provided by LTM, collect 2 samples from the targeted main chlorinated water supply Rm 9135 and 2 samples from the targeted most distal point in the circulating water loop, Barrier Rm 9402 Rack 9.
 - Prior to collecting the sample from the main water supply, wipe the end of the hose with "ready to use" peroxide wipe, you must then allow the line to flush for 1 minute.
 - While holding the water supply hose in one hand, place the collection cup in the other and place below the water hose, do not touch the hose to the collection container. Fill the container to the predetermined fill line on container. Do not overfill. Collect two separate samples.
 - Place cap on each container and label each with Rm 9135 main supply, sample 1 or 2.
 - Rm 9402 Rack 9, wipe then end of the vertical water line with the" ready to use" peroxide wipes and then allow the rack to flush for 1 minute prior to collecting the sample.
 - Place the collection container below the water supply line on the rack and collect sample to the predetermined fill line. Do not overfill. Collect two separate samples.
 - Place cap on each container and label each with Barrier Rm 9402 sample 1 or 2.
 - Samples are submitted to LTM Charles River Laboratories by selecting the Microbial Bioburden Water Test Counts w/MALDI-TOF or Test Counts only.
-

Results

- All results are sent via email by LTM directly to the University Veterinarian, Clinical Veterinarian, and Associate Director along with the submitter.
- If positive results are received, the University Veterinarian and Clinical Veterinarian will determine the next steps.

References:

SOP Revision History:

[illegible]