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**1. PURPOSE**

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This Standard Operating Procedure (SOP) describes the procedures for providing general animal husbandry for colony-housed marmosets (*Callithrix jacchus*).

**2. RESPONSIBILITY**

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Animal care staff, facility supervisor.

**3. MATERIALS**

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- 3.1. Cage cards
- 3.2. Personal protective equipment:
  - 3.2.1. Shoe covers
  - 3.2.2. Laboratory gown
  - 3.2.3. Hair bonnet
  - 3.2.4. N-95 Mask
  - 3.2.5. Gloves
  - 3.2.6. Goggles (if entering the enclosure)
  - 3.2.7. Leather or heavy-duty gloves (for manual capture of the animals)
- 3.3. Diet:
  - 3.3.1. Marmoset diet (within six months of the milling date).
  - 3.3.2. Fresh fruits and other special treats (appropriate for human consumption)
- 3.4. Fresh water bottles
- 3.5. Disinfectant solution
- 3.6. Clean environmental enrichment devices
- 3.7. Absorbent paper (to be placed on collection trays at the bottom of cages)

**4. PROCEDURES**

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- 4.1. Observation of animals:
  - 4.1.1. Observe all animals daily for illness, injury and general condition including weekends and holidays.
- 4.2. Emergency and holiday care:
  - 4.2.1. Provide routine care and husbandry for marmosets on weekends and holidays.
  - 4.2.2. Make provisions for emergency care by providing both work and after hours contact information for Principal Investigators (PI's) and their staff. Provide special requests or instructions if needed.
- 4.3. Animal identification methods:
  - 4.3.1. Identify individual animals as needed in accordance with SOP. Examples of individual identification methods include: tattoos, micro-chips, tags and collars.
  - 4.3.2. Identify all cages with a cage card.
  - 4.3.3. Include, at a minimum, the following information:
    - 4.3.3.1. Investigator
    - 4.3.3.2. Protocol number

- 4.3.3.3. Species
- 4.3.3.4. Strain
- 4.3.3.5. Sex
- 4.4. Food and water:
  - 4.4.1. Feed animals (twice daily) as per SOP.
  - 4.4.2. Empty water bottles, rinse and fill with fresh water daily. Wash water bottles once per week.
  - 4.4.3. Monitor water quality routinely to ensure that it is free of contaminants that could potentially expose animals to chemical or infectious agents. Refer to SOP for water quality monitoring requirements.
- 4.5. Social and environmental enrichment:
  - 4.5.1. Group-house animals whenever possible.
  - 4.5.2. Provide environmental enrichment devices for all marmosets.
  - 4.5.3. Refer to NHP Environmental Enrichment SOP.
- 4.6. Quarantine procedures:
  - 4.6.1. Refer to SOP.
- 4.7. Euthanasia and disposal of dead animals:
  - 4.7.1. Euthanize animals by overdose of anesthetics. Refer to Large Animal Euthanasia SOP.
  - 4.7.2. Ensure that euthanasia is conducted by trained and experienced staff.
  - 4.7.3. Dispose of dead animals by incineration.
- 4.8. Vermin control:
  - 4.8.1. Refer to SOP for a description of the vermin control program.
- 4.9. Environment and environmental control:
  - 4.9.1. Maintain room temperatures at approximately 24° C, +/- 3°.
  - 4.9.2. Maintain relative humidity between 30% and 70%.
  - 4.9.3. Maintain a daily log of room temperature and humidity.
- 4.10. Lighting:
  - 4.10.1. Provide a regular diurnal lighting cycle.
  - 4.10.2. Set the lighting to turn on at 6:00 am and increase gradually to attain maximum lighting level by 8:00am. Begin to dim lights at 6:00pm so that the lights are completely off by 8:00pm
  - 4.10.3. Check the timer performance routinely.
- 4.11. Space requirements:
  - 4.11.1. One marmoset family can be housed per 24" x 36"x 72" enclosure.
- 4.12. Cleaning and sanitation of cages:
  - 4.12.1. Daily:
    - 4.12.1.1. Clean the cage by hosing down with lukewarm water and removing debris.
    - 4.12.1.2. Remove leftover food.
    - 4.12.1.3. Rinse feed receptacles with hot water.
  - 4.12.2. Change cages once every two weeks, at a minimum. Use one (or a combination) of the following methods:
    - 4.12.2.1. Herd the marmosets directly into the clean cage:
      - Best performed just before the afternoon feeding. Place the bowl of food and fruit in the clean cage.
      - Place the clean cage face to face with the soiled cage.

- Open the small openings on the front of both cages.
  - Marmosets will transfer to clean cage on their own.
  - Clean the soiled cage thoroughly by hosing down and removing debris.
  - Spray with disinfectant and let drip.
  - Cover the cage before wheeling directly to the cage wash area.
- 4.12.2.2. Herd the marmosets into their nest/transfer box.
- Gently herd the animals towards the nest box or manually restrain them and place them in the nest box.
  - Close the box and remove from the cage.
  - Clean the cage thoroughly by hosing down and removing debris.
  - Spray with disinfectant and let drip.
  - Cover the cage before wheeling directly to the cage wash area.
  - Bring in a clean cage and transfer the marmosets.
  - Replace the nest/transfer box with a clean one.
- 4.12.2.3. Identify the clean cage with a cleaning due date (two weeks later).
- 4.12.2.4. Environmental enrichment devices are cleaned and replaced at the time the cages are changed.
- 4.13. Cleaning and sanitation of housing room and equipment:
- 4.13.1. Daily:
- 4.13.1.1. Wash the floors with disinfectant solution. Squeegee dry.
  - 4.13.1.2. Clean walls surrounding the cages if necessary.
- 4.13.2. Weekly:
- 4.13.2.1. Flush the floor drains.
  - 4.13.2.2. Launder lab coats.
- 4.13.3. Monthly:
- 4.13.3.1. Clean the walls with disinfectant solution
  - 4.13.3.2. Wipe down all surfaces such as sinks, doors, doorjambes and doorknobs, windows, cart tops, shelves, etc. with the disinfectant solution.
  - 4.13.3.3. Run garbage container through cage washer.
- 4.14. Transportation:
- 4.14.1. Transport animals as per SOP.
- 4.15. Preparation disinfecting solution:
- 4.15.1. Wear personal protective equipment when preparing and using disinfectant solution.
  - 4.15.2. Dilute according to manufacturer's recommendation.
  - 4.15.3. Clean surfaces prior to disinfection to remove any organic material.
  - 4.15.4. Apply disinfectant and allow for adequate contact time.
- 4.16. Waste Management:
- 4.16.1. Deposit non-regulated or non-infectious Medical Waste and soiled materials in dumpsters.
  - 4.16.2. Regulated or infectious Medical Waste is processed by McGill University's Waste Management program.

## 5. SPECIAL PROCEDURES

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### 5.1. Dead Animals:

5.1.1. Dead animals are to be reported to veterinary care staff immediately. They will contact the PI.

5.1.2. The body of any marmoset is never to be discarded without authorization from the veterinarian. A post-mortem examination is usually requested.

### 5.2. Sick or injured animals:

5.2.1. Place a Veterinary Care card on the cage housing the sick animal.

5.2.2. Complete an Illness/Injury Report and submit or call it in to the veterinary care staff.

## 6. SAFETY

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6.1. Wear appropriate PPE at all times.

6.2. Observe SOP for animal related injuries.