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## STANDARD OPERATING PROCEDURE

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**TITLE:** Genotyping and Identification / Mice, Health Sciences, Western  
**SOP NO.:** 341-02  
**REVISION:** 02  
**EFF. DATE:** December 2008  
**SUPERSEDES:** 341-01

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### APPROVALS

Prepared by (print name): \_\_\_\_\_ Dept.: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed by (print name): \_\_\_\_\_ Dept.: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Approved by (print name): \_\_\_\_\_ Dept.: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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### 1.0 PURPOSE

- 1.1 This document outlines the procedures which are approved for use when removing tissue from mice for genotype analysis and for identifying the animal from which the samples are taken. If these procedures are not followed, full details and justification must be approved on the AUP.

### 2.0 SCOPE

- 2.1 This document applies to all individuals genotyping mice at the University of Western Ontario and its affiliated institutions.

### 3.0 RESPONSIBILITIES

#### 3.1 TRAINING COORDINATOR

- 3.1.1 Responsible for training all individuals who perform genotype analysis on mice, in the appropriate techniques.

#### 3.2 PRINCIPAL INVESTIGATORS

- 3.2.1 Ensure that any members of their staff, who perform tissue sampling and identification on mice, are familiar with this SOP and trained in the correct procedures.

### 4.0 PROCEDURE

#### 4.1 MOUSE TISSUE SAMPLING AND IDENTIFICATION

- 4.1.1 Use the smallest sample size possible.
- 4.1.2 Sample and genotype before weaning unless specifically approved on AUP.
- 4.1.3 Animals **older than 4 days and younger than 8 days** may be sampled and identified by one of the techniques listed below. The animals do not require anaesthesia for these procedures:
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- ear notch for testing and identification
  - tail clip not exceed 0.25 cm and identification by ear notching or indelible marker
  - toe clip of a single toe, on one foot only
  - the use of a desensitizing agent (i.e. ethyl chloride – safety approval required) or local anaesthetic is recommended
- 4.1.4 Mice **older than 8 days and younger than 21 days** can be sampled and identified by the following techniques, these not require general anaesthesia
- ear notching alone for both testing and identification
  - tail clip not to exceed 0.5 cm. For most procedures 0.25 cm will be sufficient. Animals may be identified by ear notching, tail tattooing, indelible marker or ear tag.
  - any non invasive technique which is applicable to the specific line of mice e.g. fluorescence screening, saliva testing or hair testing
  - the use of a desensitizing agent (i.e. ethyl chloride – safety approval required) or local anaesthetic is recommended
- 4.1.5 Mice **older than 21 days must be anaesthetized** for tail clipping but may be ear notched without anaesthesia.
- 4.1.6 **Analgesia must be provided if animals are older than 4 weeks.**
- 4.1.7 Any approved mouse general anaesthetic technique can be used for this purpose. (see Fact Sheet on mouse anaesthesia)
- 4.1.8 All instruments used must be sharp, well maintained and disinfected between animals.

### 5.0 HEALTH AND SAFETY

- 5.1 All WHMIS regulations and guidelines for the handling and disposal of pharmaceuticals must be followed.

### 6.0 REVISION HISTORY

Revision	Reason(s) for Revision	Initiated by
00	New Document	

### 7.0 REFERENCES / ASSOCIATED MATERIALS

### 8.0 ATTACHMENTS