

Research Animal Standard Operating Procedures (SOP) must meet the following criteria:

1. Describe procedures or activities involving research animal(s) common to more than one research project.
2. Support the handling and or performance or undertaking of a procedure(s), involving an animal, in the same way on each occasion it is performed.
3. Describe a procedure or activity involving a research animal(s) undertaken by more than one person; and
4. Describe a procedure or activity involving a research animal(s) that will be undertaken in more than one location.

Name of Procedure	Intranasal administration	
Species	Mouse	
ACEC	Reference	SOP 19 – Jan23 - Intranasal inoculation – mouse
	Author	Nicole Hansbro
	Version	1.5
	Date approved	27 January 2023
	Date for review	27 January 2026
	Procedure classification	4
Ethical considerations	<ol style="list-style-type: none"> 1. Respect for animals must underpin all decisions and actions involving the care and use of animals for scientific purposes. 2. The procedure must be performed according to current best practice to support the wellbeing of the animal. 3. Persons performing this procedure must be competent in the procedure or be under the direct supervision of someone who is competent. 	

Details

Purpose

To administer a substance intranasally to a mouse under light anaesthesia

Description of procedure

1. Equipment:

- 1.1 Class II Biological safety cabinet
- 1.2 Pipettes and associated tips
- 1.3 Anaesthetic machine and induction chamber
- 1.4 Substance to be administered

2. Method:

- 2.1 Prepare substance to be administered so that the concentration required is in a volume of up to 50µl.
- 2.2 Lightly anaesthetise each mouse in accordance with SOP6: Isoflurane Anaesthesia – Chamber Induction.
- 2.3 Remove an animal from the induction chamber, by grasping the skin on the back of the neck firmly between thumb and pointer finger. Gently turn the animal over so it is on its back with body supported in the palm of hand. Hold the animal so its body is lying flat with the head tilted slightly back.
- 2.4 Using either a P20 or P200 pipette and an associated tip, collect volume of the substance to be administered.
- 2.5 Place the pipette tip near the tip of the nose and gently expel the contents of the pipette allowing the mouse to slowly breathe it in as it takes natural breaths.
- 2.6 Once the animal has inhaled all of the substance, gently place it on its back in the bottom of its cage and observe that breathing is normal and it rights itself (this should occur in 5-10 seconds).
- 2.7 Monitor as per the approved protocol following this procedure.

Substances administered

Drug name (generic name, not trade name)	Dose rate (mg/kg body weight)	Route	Timing of administration, and frequency	Purpose
Isoflurane	1-5% in O ₂ (1-3L/min)	Chambered gas	1-5 min prior to intranasal inoculation	To induce light anaesthesia

Research and Innovation Division
Research Animal Standard Operating Procedure
SOP# 19



ACEC Chair

