

Location: University

Responsibility: Principal Investigators (PI), Research Staff, Veterinary Staff

Purpose: The purpose of this Standard Operating Procedure (SOP) is to describe the standard method used for retro-orbital injections in mice.

1. Introduction and Definitions:

Retro-orbital injections are commonly used for transplants of stem cells (not limited to) as an alternative to tail vein intravenous injections. They are less challenging technically than tail vein injections. Because the needle is being placed in the retro-bulbar space (the region behind the globe of the eye) the mouse should be anesthetized so that it remains still during the procedure

2. Materials:

- 1 cc sterile syringe (or insulin syringes)
- 27-30g sterile needles
- Anesthesia (isoflurane vaporizer, injectable anesthetic)
- Induction chamber and nose cone
- Sterile gauze
- ophthalmic anesthetic (i.e. 0.5% proparacaine hydrochloride ophthalmic solution)
- Absorbent paper

3. Procedures:

Each and every animal requires a new sterile syringe and a new sterile needle.
Load the sterile 1cc syringe and a 27-30g needle with appropriate volume to be injected (maximum 200ul).

The procedure is facilitated by being seated at a table bench or hood

Anaesthetise the mouse (following SOP 7.6 Anesthesia in MiceT 0 0 1 324.77 310.25 Tmy3. 0 612 72 re)

