

COMPARATIVE MEDICINE
LABORATORY ANIMAL FACILITIES

STANDARD OPERATING PROCEDURES
for
MICROPET INJECTION PROCEDURE

- 1.0 Purpose:
This procedure outlines how to give an IV injection to a mouse that will be used in the PET Scan machine.
- 2.0 Scope:
This procedure applies to all individuals working with PET Scan mice.
- 3.0 Procedures:
 - 3.1 Before entering PET Scan room, 202B, make sure dosimeter badge and ring (facing the palm) are worn.
 - 3.2 Wear gloves at all times. If gloves become contaminated with radioactive material, replace and place gloves in the assigned area.
 - 3.3 Place protective coverings (underpads) on workspace where the injections will be taking place.
 - 3.4 Prepare 1 ml syringe with a 25 or 26 gauge needle.
 - 3.5 Total volumes to be injected intravenously should not exceed 10% of blood volume or 1% of body weight. (e.g. 0.25 ml for 25 g mouse.)
 - 3.6 Place cage of mice under heat lamp for a few minutes to dilate tail vein.
 - 3.7 At this time you can either anesthetize animal with Isoflourane (as per protocol) or place mouse in restrainer.
 - 3.8 Look at tail. If unable to see vein, use a magnifying glass and/or hot water to dilate vein more. Veins are blue in color.
 - 3.9 Hold tail of mouse with one hand and syringe in other. Slowly insert needle bevel up into vein and inject slowly. If you are in the vein, it will turn white when you inject. If not, you will get a raised area around the tip of the needle and it will be hard to inject. If this happens, remove needle and try again above (cranial to) the spot.
 - 3.10 Once mouse is injected, place back in cage or proceed with PET Scan. Make sure cage is labeled radioactive.
 - 3.11 Place used needles, syringes, underpads and gloves in designated area for disposal.