

Imaging Facility
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Animal Preparation (Vevo 2100)

Standard Operating Procedure

- 1. Turn on physiological monitoring unit (temperature and heart rate). Set temperature of mouse platform.
- 2. Add isoflurane to reservoir on vaporizer if necessary, closing bottle and reservoir as quickly as possible.
- 3. Turn on oxygen (gas cylinder).
- 4. Flow rate is pre-adjusted. No need to adjust.
- 5. Adjust the stopcock (red tape) on the y-piece tubing so that the isoflurane/oxygen mixture will flow into the induction chamber. Make sure stopcock on tubing going to nose cone (pink tape) on mouse platform is closed.
- 6. Turn vaporizer dial for isoflurane delivery to 3-5 %.
- 7. Place the animal in the clean induction chamber, making sure to close the chamber securely.

Note: The induction chamber is functionally airtight; do not leave animals in the closed chamber without gas flow.

- 8. When sedated, turn on isoflurane flow in tubing going to nose cone on mouse platform. Turn off isoflurane flow to induction chamber.
- 9. Transfer mouse/rat onto imaging platform and attach nose cone.
- 10. Put electrode cream on electrodes on platform (to ensure good conductivity), then tape down paws of animal onto electrodes.
- 11. Apply a layer of hair removal cream (Nair) with a gauze tipped applicator on area to be imaged. Ensure that the cream gets into skin of mouse.
- 12. After 1-2 minutes, wipe Nair off with moist gauze. The prepared area should be clean, bare skin without any stray pieces of hair.
- 13. Dial isoflurane concentration to 1.5-2.0%.. Monitor heart rate of animal.
- 14. Apply bland ophthalmic ointment to animal's eyes, especially if imaging the same animal for more than 30 minutes..
- 15. Apply ultrasound gel on area to be imaged and begin scanning either freehand or using the probe stand.