*Ibotenic Acid Injections:*

Animals will be anesthetized using ketamine/xylazine. The animal is mounted in a Dual Standard Stereotaxic Instrument for Rats (*Braintree Scientific #515 03D*). To access the proper coordinates for brain injections, the skull is exposed via a mid-dorsal incision on the crown of the head. The skin is retracted to expose the underlying muscle. The occipitalis muscle may cover area of interest due to age/weight of experimental animal. If this is the case, a scalpel may be used to remove a small portion of the muscle to expose the skull. A cordless microdrill (*Soelting #58610*) with a 1mm drill bit (*Soelting #514554*) will be used to create 1mm hole in the skull. Injections are targeted at the lateral vestibular nucleus in the brain stem. Injections will occur at +/-2.3mm lateral and 7mm deep at -10.92mm Bregma. 1 injection of 1ul at a concentration of 10ug/ul will be made to lesion and ablate neuronal density in the LVN. These surgeries will take one hour to complete.