

UNILATERAL PARKINSON'S MODEL

ORDER CODE: PARKINSON

SPECIES: Rat

DIET SUPPLEMENT: None

This procedure involves the injection of a 6-Hydroxydopamine solution into the substantia nigra of the brain. An apomorphine challenge is performed a minimum of seven days after surgery. The resulting model is used in research studies on Parkinson's Disease.

Surgical Procedure

The animal is prepared for surgery using pre-operative and anesthetic procedures as described in our *Surgical Capabilities Reference Paper*, Vol. 13, No.1, 2005. The hair on the animal's scalp is clipped. A small midline sagittal skin incision is made on the scalp to expose the skull. The connective tissue on the skull is removed with a sterile cotton tip applicator. The bone sutures, bregma and lambda, are identified. A hypodermic injector connected to a pump-driven microsyringe is loaded onto the injector holder of the stereotaxic apparatus. The tip of the injector is pointed directly over the bregma, and the zero coordinates are recorded. The injector is then repositioned to predetermined coordinates in order to place the tip into the substantia nigra. A hole is drilled to receive the injector. The injector and microsyringe is filled with 6-OHDA solution. The injector is lowered through the hole into the substantia nigra. The solution is administered at a slow, constant rate over a given time interval, after which, the needle is held in place for 5 minutes before being removed. The skin incision is closed using wound clips.

IACUC

Charles River's Institutional Animal Care and Use Committee (IACUC) governs the entire surgical process, including any post-operative holding in CRL facilities prior to shipment. The receiving institution's Animal Care and Use Committee, investigators, and animal care staff are responsible for the well-being of the animal subsequent to its arrival. Justification for use of surgically-modified animals, review of experimental protocols, authorization to order animals that are surgically modified from Charles River, and all aspects concerning the use of surgically-modified animals after they arrive at the institution are the responsibility of the receiving institution's IACUC.

February 2002