

## FEMORAL ARTERY CATHETERIZATION

ORDER CODE: FEMART

SPECIES: Rat

DIET SUPPLEMENT: None required

Vascular catheters are surgically placed in various species to facilitate the repeated or routine sampling of fluids, or to allow for repeated or routine injections of materials. The pharmacological distribution and metabolism of the material being evaluated, in conjunction with the anticipated response in the animal model being used, determines which vessel to catheterize.

### 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. A small crano-caudal incision is made in the right caudal area. The subcutaneous connective tissue is cleared away by blunt dissection to expose the femoral artery, femoral vein and nerve. The connective tissue surrounding the nerve is cleared away to isolate the femoral artery. A loose ligature is placed proximally, and the distal end of the artery is ligated. A small incision is made into the femoral artery between the ligatures. A pre-made catheter is inserted through the incision and advanced toward iliac artery until the first bead on the catheter reaches the incision site. The proximal ligature is tied around the cannulated vessel. The patency of the catheter is tested. A small skin incision is made at the scapulae region allowing for the catheter to be subcutaneously tunneled and exteriorized. The catheter is secured onto the abdominal muscle. The caudal incision is closed with wound clips. A stay suture is placed at the level of the third bead at the scapulae area. Patency is tested, and the catheter is filled with a locking solution and sealed with a plug. A subcutaneous skin pocket is made cranially. The excess length of catheter is tucked into the skin pocket. The skin incision is closed with a wound clip.

### 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.

April 2000