

## Intended Use

Bile sampling from rats.

## Set Up

1. Select the catheters that will fit the bile duct. We suggest either 3fr polyurethane or Funnel Cath that will mate with long 22ga hypodermic tubing in the collection vial.
2. Catheterize the bile duct as per your SOP.
3. Route the bile duct outflow up through the tether to either of the long 22g. tubes in the collection vial.
4. Route the intestinal side of the bile duct through the tether all the way up to the lower side channel outlet of the dual swivel.
5. Connect a pump with artificial bile to the upper side inlet of the dual swivel.
6. Bile will free flow into the collection vial and will only have to overcome about 2-3 inches of hydrostatic pressure head. Expected flow rate is about 1 ml/hr. for a rat.
7. Connect the other 22 ga. tube (aspiration tube) through the offset section of the spring up to the bottom of the central channel on the swivel.
8. Attach a suction pump, either a peristaltic or syringe pump, to the top of the swivel.\*
9. Do not connect anything to the small tube in the top of the collection vial; it is an air vent.

## Bile Collection

1. Periodically run the aspiration pump to quickly withdraw the entire contents of the collection vial. Extra air at the end of this process will clean out the line. Save these samples in another vial.
2. Based upon the bile generation rate, adjust the artificial bile infusion rate to match..

\* Good pump choices for this application include:

- (a) Instech P720 peristaltic pump (<http://www.instechlabs.com/Pumps/peristaltic/>)
- (b) Harvard Apparatus HA11DW syringe pump (<http://www.instechlabs.com/Pumps/syringe/11.php>)
- (c) Instech ABS110 in bile collection mode (<http://www.instechlabs.com/Infusion/bloodsampling/>).

