

## ADULT BRAIN INJECTIONS

Avertin	epinephrine	70% EtOH
clippers	lidocaine	
scalpel/blade	stereotaxic instrument	
Precision syringe	30 gauge needle	
H <sub>2</sub> O	1.5 ml syringe	
infusate	incision clamps	
cotton swabs	injection pump	

### I. set up injection syringe

pull H<sub>2</sub>O into tubing using 1.5 ml syringe and 30 gauge needle; flush tubing  
pull tubing, filled with water, onto precision syringe (gloves, hemostats/micro)  
pull small bubble  
pull infusate into tubing  
\*there should be no lag time of bubble movement when pulling solution in tubing  
mark bubble to check movement  
clamp needle (not tubing) onto flat side of cube

### II. set up animal

anesthetize mouse via IP injection of avertin (0.017 ml/ gram)  
shave head using clippers or scissors  
put mouse into ear bars and incisor  
make incision using scalpel or blade  
apply local anesthetic (lidocaine 0.5% solution) and epinephrine to reduce  
bleeding

### III. set stereotaxic coordinates

Rostral/caudal  
Medial/lateral

### IV. insert injection needle

Drill holes according to coordinates (triple check!)  
Insert needle dorsal/ventral into brain  
Turn on pump (ml/hour) at setting 1  
Watch for bubble movement (should see within 45 seconds)  
Inject total volume of one  $\mu$ l at rate of 0.5 ml/ 4-5 minutes

### V. Post - op

Clamp incision and watch animal for recovery