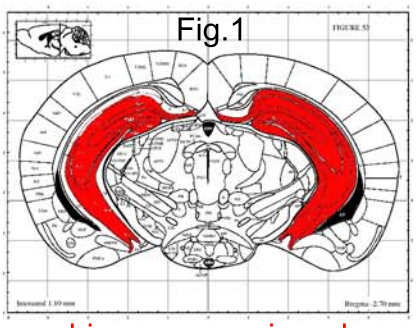
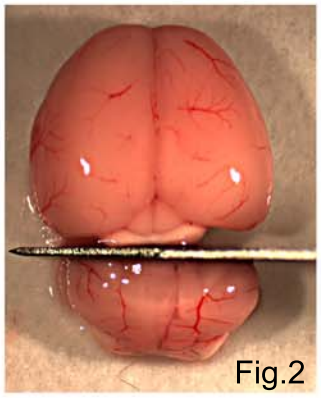
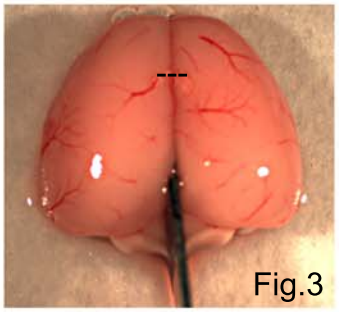
Hippocampus Dissection

Important Note: The following dissections are performed using a dissecting microscope, with brain on filter paper moistened with cold RNAse-free 1X PBS on top of a Petri dish filled with ice. All surgical instruments are cleaned with RNAseZap in between each animal and brain region.

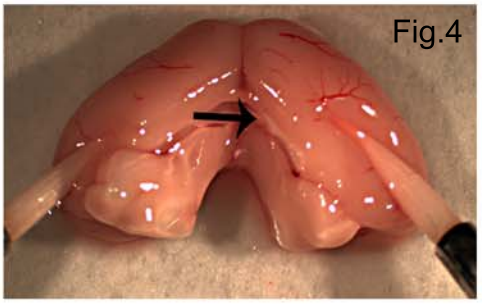


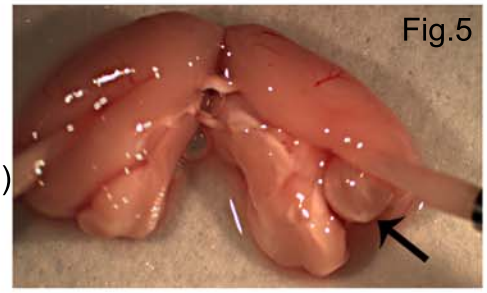
hippocampus in red





Method:
Remove brain from skull, and place dorsal side up.
Using a no. 10 scalpel blade, remove cerebellum by making a coronal cut perpendicular to dish just behind the inferior colliculi (Fig.2).
Make a second cut sagittally down the midline, perpendicular to the dish, completely through the brain, leaving the top third attached as shown by dashed line in Fig.3.





Using two paintbrushes, gently spread apart the two halves of the brain (Fig.4). Hold one side of the brain steady with a brush. Slide the other brush into the hippocampal groove (shown by arrow, Fig.4) and gently roll out the hippocampus.
Fig.5 shows the hippocampus rolling out and is designated by a black arrow.
Fig.1 shows the hippocampus region in red.

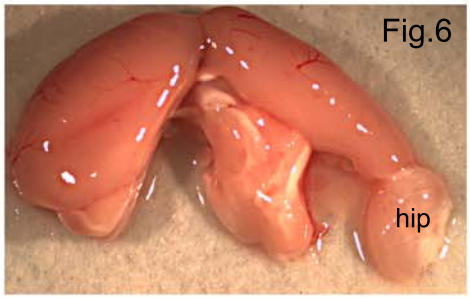


Fig.6 shows the hippocampus completely rolled out (hip).

Pinch off the hippocampus, using a brush to free it from the cortex (Fig.7).

Repeat with second half of brain.

Immediately place tissue into the bottom of a 15ml conical Falcon tube, and immediately snap freeze on dry ice.