

Sheep Brain Dissection Laboratories – PSY 348

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(find structures in Vanderwolf & Cooley, fill in page numbers on blanks)

Lab 1B: Mid-sagittal features

Lab 1A: External Features

1. spinal cord _____
2. myelencephalon _____
 - (a) medulla _____
 - (b) pyramidal tract _____
3. metencephalon _____
 - (a) cerebellum _____
 - i. cerebellar vermis _____
 - ii. cerebellar hemisphere _____
 - (b) pons _____
 - (c) trigeminal nerve _____
4. mesencephalon _____
 - (a) cerebral peduncle _____
 - (b) oculomotor nerve _____
 - (c) tectum _____
 - i. superior colliculus _____
 - ii. inferior colliculus _____
5. diencephalon _____
 - (a) mammillary body _____
 - (b) infundibulum _____
 - (c) optic tract _____
 - (d) pineal body _____
6. telencephalon _____
 - (a) medial longitudinal fissure _____
 - (b) sylvian fissure _____
 - (c) rhinal fissure _____
 - (d) olfactory bulb _____
 - (e) uncus _____
 - (f) lateral olfactory tract _____
 - (g) medial olfactory tract _____

1. Ventricles
 - (a) Fourth ventricle _____
 - (b) Cerebral aqueduct _____
 - (c) Third ventricle _____
 - (d) Intraventricular foramen _____
2. Cerebellum _____
 - (a) arbor vitae _____
3. Midbrain (mesencephalon) _____
 - (a) Tectum _____
 - i. Superior colliculus _____
 - ii. Inferior colliculus _____
 - (b) Tegmentum _____
4. Diencephalon _____
 - (a) Thalamus _____
 - i. massa intermedia _____
 - ii. habenula _____
 - (b) Hypothalamus _____
 - i. mammillary body _____
 - (c) Pineal body _____
 - (d) Posterior commissure _____
 - (e) Optic chiasm _____
5. Telencephalon _____
 - (a) Corpus Callosum _____
 - i. splenium _____
 - ii. body _____
 - iii. genu _____
 - (b) Fornix _____
 - (c) Septum pellucidum _____
 - (d) Cingulate gyrus _____

Lab 2: Gross dissection (half brain)

Gradually remove tissue from the dorsal surface to reveal these structures:

1. Corpus callosum
2. Lateral ventricle
3. Caudate nucleus
4. Hippocampus
 - (a) fimbria
 - (b) fornix
5. Septal nucleus
6. Lifting up hippocampal complex:
 - (a) fimbria
 - (b) dentate gyrus
 - (c) hippocampal fissure
7. Pineal body
8. Thalamus
 - (a) lateral geniculate nucleus
 - (b) pulvinar
 - (c) medial geniculate nucleus
9. Removing cerebellum
 - (a) superior colliculus
 - (b) inferior colliculus
 - (c) cerebellar peduncles
 - (d) fourth ventricle

Lab 3: Coronal Sections (half brain)

Slicing from the front of the brain, reveal the following structures:

1. First slice (behind olfactory bulbs):
 - (a) Corpus callosum
 - (b) Corona radiata
 - (c) Lateral ventricle
 - (d) Cingulum
 - (e) Caudate nucleus (head)
 - (f) Putamen
 - (g) Internal capsule fibers (running between caudate and putamen)

- (h) External capsule
2. Second slice (Through front of optic chiasm):
 - (a) Optic chiasm
 - (b) Anterior commissure (decussating)
 - (c) Septal nucleus
 - (d) Fornix (column)
 - (e) Globus pallidus
 - (f) Cingulum
3. Third slice (through back of optic chiasm, and fimbria/fornix):
 - (a) Cingulum
 - (b) Corpus callosum
 - (c) Caudate nucleus (tail)
 - (d) Internal capsule
 - (e) External capsule
 - (f) Amygdala
 - (g) Fimbria
 - (h) Fornix
 - (i) Third ventricle
 - (j) Thalamic nuclei
 - i. anterior thalamus
 - (k) Hypothalamus
4. Fourth slice (through posterior commissure and pineal body):
 - (a) Corpus callosum (splenium)
 - (b) Hippocampus
 - (c) Pineal body
 - (d) Posterior commissure
 - (e) Thalamic nuclei
 - i. lateral geniculate nucleus
 - ii. pulvinar
 - (f) Substantia nigra
 - (g) Midbrain reticular formation
5. Fifth slice (through superior colliculus and cerebral aqueduct)
 - (a) Optic radiations
 - (b) Superior colliculus
 - (c) Inferior colliculus
 - (d) Central gray
 - (e) Pons
 - i. transverse pontine fibers