

Lab Exam 2 Objectives

Nervous System

Nervous Tissue (note: boldface headings are NOT objectives)

| Basic neuron components | Types of neurons & components |
|--|-------------------------------|
| Neurofibrils | Interneuron |
| Nissl bodies | Axon |
| Nucleus of neuron | Cell body |
| Glial cells | Dendrites |
| Myelin sheath | Motor (efferent) neuron |
| Neurilemma (alt sp. Neurolemma) | Axon |
| Neurolemmocyte (Schwann cell) | Cell body |
| Node of Ranvier (neurofibrils node) | Dendrites |
| Nucleus of neurolemmocyte (Schwann cell) | Sensory (afferent) neuron |
| Synapse | Axon |
| Synaptic knob | Cell body |
| | Dendrites |

Histology

Identify the following on a slide of nerve tissue.

| | |
|-----------|------------------------|
| Cell body | Nucleus |
| Neuroglia | Processes of cell body |

Spinal Cord, Spinal Nerves & Reflex Arcs (note: boldface headings are NOT objectives)

| | |
|---------------------------------------|---|
| Spinal Cord | White matter |
| Anterior (ventral) root | Meninges & associated spaces |
| Anterior median fissure | Arachnoid mater |
| Cauda equina | Denticulate ligament |
| Central canal | Dura mater |
| Conus medullaris | Epidural space |
| Dorsal root (ganglion (pl. ganglia)) | Pia mater |
| Gray matter | Subarachnoid space |
| Intervertebral foramen (pl. foramina) | Subdural space |
| Posterior (dorsal) root | |
| Posterior median sulcus (pl. sulci) | |
| Spinal (vertebral) foramen | |
| Spinal nerve | |
| Vertebral body | |

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Reflex Arc

| |
|---------------------------|
| Effector |
| Interneuron |
| Motor (efferent) neuron |
| Sensory receptor |
| Sensory (afferent) neuron |

Brain Anatomy (note: boldface headings are NOT objectives)

| | |
|---|----------------------------------|
| Parts of Brain | Subdural space |
| Brainstem | Superior sagittal sinus |
| Cerebellum | Cerebral structures |
| Cerebrum | Corpus callosum |
| Hypothalamus | Choroid plexus of each ventricle |
| Medulla oblongata | Frontal lobe |
| Midbrain | Fornix |
| Pons | Gray matter |
| Thalamus | Lateral ventricles |
| Brainstem structures | Occipital lobe |
| Cerebral aqueduct (of Sylvius) | Olfactory bulb |
| Corpora quadrigemina | Olfactory tract |
| Inferior colliculus (pl. colliculi) | Optic chiasma |
| Superior colliculus (pl. colliculi) | Optic nerve |
| Fourth ventricle | Optic tract |
| Diencephalon structures | Parietal lobe |
| Hypophysis (pituitary gland) | Septum pellucidum |
| Infundibulum | Temporal lobe |
| Intermediate mass of thalamus | White matter |
| Mamillary body | Fissures |
| Pineal gland (body) | Lateral fissure (sulcus) |
| Third ventricle | Longitudinal cerebral fissure |
| Meninges & associated spaces | Transverse fissure |
| Arachnoid mater | |
| Arachnoid villus (pl. villi) | |
| Dura mater | |
| Pia mater | |
| Subarachnoid space | |

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Sheep's Brain

| | |
|-------------------------------|---------------------|
| Brainstem | Midbrain |
| Cerebellum | Occipital lobe |
| Cerebrum | Olfactory bulb |
| Corpora quadrigemina | Optic chiasma |
| Corpus callosum | Optic nerve |
| Fornix | Parietal lobe |
| Fourth ventricle | Pineal gland (body) |
| Frontal lobe | Pons |
| Hypophysis (pituitary gland) | Septum pellucidum |
| Hypothalamus | Superior colliculus |
| Inferior colliculus | Temporal lobe |
| Longitudinal cerebral fissure | Thalamus |
| Mamillary body | Third ventricle |
| Medulla oblongata | Transverse fissure |

Autonomic Nervous System

| |
|--|
| Celiac ganglion (pl. ganglia) |
| Inferior mesenteric ganglion |
| Postganglionic efferent neuron |
| Preganglionic efferent neuron |
| Superior mesenteric ganglion |
| Vertebral autonomic (sympathetic chain) ganglion |

Sense Organs

Anatomy of the Ear

| | |
|------------------------------------|-------------------------------|
| Auditory (Eustachian) tube | Scala tympani |
| Auricle (pinna) | Scala vestibuli |
| Cochlea | Semicircular canals |
| Cochlear duct | Spiral organ (organ of Corti) |
| Cochlear nerve | Stapes |
| External auditory (acoustic) canal | Temporal bone |
| Incus | Tympanic membrane |
| Labyrinth (osseous & membranous) | Vestibular nerve |
| Malleus | Vestibule |
| Oval window | Vestibulocochlear nerve |
| Round window | |

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Anatomy of the Eye

| | |
|-------------------------|-----------------------|
| Anterior cavity | Lacrimal sac |
| Aqueous humor | Lens |
| Blind spot (optic disk) | Macula lutea |
| Choroid | Nasolacrimal duct |
| Ciliary body | Optic nerve |
| Ciliary process | Posterior cavity |
| Conjunctiva | Pupil |
| Cornea | Retina |
| Fovea centralis | Sclera |
| Iris | Suspensory ligaments |
| Lacrimal duct (canal) | Vitreous humor (body) |
| Lacrimal gland | |

Cow's Eye

| | |
|-------------------------|-----------------------|
| Aqueous humor | Lens |
| Blind spot (optic disk) | Optic nerve |
| Choroid | Pupil |
| Ciliary body | Retina |
| Cornea | Sclera |
| Iris | Vitreous humor (body) |

Endocrine System

| | |
|---------------------------------------|---------------------|
| Adenohypophysis (anterior pituitary) | Parathyroid glands |
| Adrenal cortex | Pineal gland (body) |
| Adrenal medulla | Testis (pl. testes) |
| Neurohypophysis (posterior pituitary) | Thymus gland |
| Ovary | Thyroid gland |
| Pancreas | |

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