

9.01 Study Questions:

Sessions 12 Lecture Questions

1. Write short definitions of the following terms:
 - a. Propriospinal system of axons.
 - b. Paravertebral ganglia (chains of ganglia).
 - c. Prevertebral ganglia, e.g., the celiac ganglion (solar plexus).
 - d. Vagus nerve.
 - e. Dorsal horn, ventral horn, lateral horn.
 - f. Dorsal columns, lateral columns, ventral columns.
 - g. Medial lemniscus.
 - h. Pyramidal tract.
 - i. Alar plate and basal plate.
 - j. Neural crest cells.
 - k. Preganglionic motor neurons.
2. What are the spinal enlargements? Where are they, and why did they develop?
3. Describe Otto Loewi's experiment which indicated that synaptic transmission was chemical in nature.
4. Loewi talked about two neurotransmitters acting on the heart: "acceleransstoff" and "vagusstoff" (the accelerator substance and the vagus substance). What did these two neurotransmitters turn out to be?
5. Contrast the sympathetic and the parasympathetic innervation of a typical, such as the iris or the heart or the intestinal tract.
6. The ventrobasal thalamic nucleus (nucleus ventralis posterior, pars lateralis and pars medialis) receives somatosensory input from both paleolemniscal and neolemniscal channels. The two CNS tracts that carry this input from the spinal cord are known as _____ and _____.