

Dental Conference 6

1. In the brain, biogenic amines are often used as modulatory transmitters, being confined to small nuclei with widespread axonal radiations. Identify a few of these amines with their locations and possible roles in controlling behavior.
2. In what direction will an EEG recording deflect in response to inhibitory synaptic input near the cell body of a pyramidal cell in the cerebral cortex?
3. Does abnormal electrical activity remain confined to a small area of the brain during a partial seizure, and is this what distinguishes a partial from a generalized seizure?
4. Where are the lesions giving rise to the following symptoms?
 - A. inability to recognize left leg as belonging to oneself
 - B. inability to suppress inappropriate behavior
 - C. difficulty in understanding written material (assume no defects in visual pathway)
 - D. difficulty in understanding written material only in left visual field
 - E. apraxia
5. What are the major classes of axonal guidance cues? Give an example of each.
6. How does connection to a synaptic target influence the survival of neurons?
7. If you knocked out the mammalian caspase homolog of *C. elegans* ced-3, would you still need neurotrophins to prevent cell death of sensory neurons?