Dental Conference 7

1. What is the difference between a saccadic eye movement and eye movement triggered by the vestibulo-ocular reflex? What is the difference between smooth pursuit and vergence?

2. Four types of neuron in the brain stem contribute to saccades. Name them, describe their firing patterns relative to the saccade and the information they convey.

3. Where are the frontal eye fields and how do they contribute to a saccade?

4. 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.

5. 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?

6. 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?

7. In which ways does REM differ from NREM sleep?

8. Where are the lesions giving rise to the following symptoms?

9. Which proteins have been associated with the etiology of Alzheimer’s disease by genetic linkage analysis? Which has been most closely linked?

10. Name a neurological disorder that is caused by abnormal nucleotide repeats. Does altering the number of repeats affect the expression of the disorder?