

## **Assignment 3**

### **Professor: Eric Schwartz – EC500**

Problem 1. The brain in words and pictures

The readings from Kandel and Schwartz suggest that the central nervous system consists of seven major components. For each one of these components, write a short summary (one or two sentences) describing that component in structural terms. Find some pictorial material (either from Kandel-Schwartz, Gluhbegovich (on the wiki for Lecture 3), or wikipedia, and draw your own version of the sketch. State in a few sentences what the functional role that this component might support.

Then, draw a sketch of a pyramidal cell, indicating its major components, as in the readings in Kandel-Schwartz. Include the soma, dendrites (basal and apical), axon, synapses. Indicate the functional significance of each labeled component.

Then, draw a simple sketch indicating the meaning of the terms sagittal, coronal, horizontal, dorsal, ventral, rostral, caudal, anterior, posterior. You can find this information in the Kandel Chapter – these terms indicate how anatomists refer to direction and geometry in the brain.