**The Developing Brain**

**FA17**

**Study Guide for Assignment #1: Basic concepts written exam**

*Below are example questions, to give you some idea of the type of questions, and areas in the literature that will be covered in the exam.*

1. Explain how the following concepts are used to describe anatomical location: anterior, posterior, dorsal, ventral, lateral, medial.
2. Draw and name the basic structure of a neuron (at least 5 parts):
3. Draw a brain and name at least 10 anatomical structures.
4. Explain how the brain (you may limit this to the function of a neuron) process information using both electrical events and release of chemicals.
5. Give three examples of neuroimaging techniques and describe briefly how they function. For each, give one of their benefits in research, and one of their limitations (e.g temporal/spatial resolution, ages, etc). Note whether the technique is an example of functional or structural imaging.
6. What is the effect of myelinization on brain function? *(short answer)*
7. What is the difference between a maturational and a constructivist view on brain development? *(short answer)*
8. Explain the concepts phylogeny and ontogeny *(short answer)*
9. Briefly describe the neocortex as two dimensions (layers and area distribution). i.e. how do the different layers differ, and give some examples of how the cortex differs in different areas (function, for instance). *(short answer)*