

Worksheet for lecture 6

- Draw a simple outline of a cell. (It could be just a circle, or it could be a neuron with mostly soma.) Draw in the following organelles: nucleus, chromosomes, nucleolus, ribosomes, endoplasmic reticulum, golgi apparatus, mitochondria, lysosomes and cell membrane,
- Draw another circle to represent the outline of a cell and a smaller circle inside that one to represent the nucleus. Add a schematic of protein synthesis starting with a chromosome. Label the key players. What are the names of the two main steps in the process.
- Draw a simple generic neuron. Use labels and arrows to show the two main types of axonal transport and their directions.
- Draw a simple outline of a synapse. Include synaptic vesicles, pre- and postsynaptic densities, synaptic cleft, neurotransmitter receptors, and processes of astrocytes. Label each of these. What are the main excitatory and inhibitory neurotransmitters of the brain and where would they mainly be located in your drawing?
- Draw a simple tube to represent an axon (in longitudinal and/or cross-section). Add myelin to your drawing. What cell types form myelin? What is myelin for?