**Video Links for the slides:**

Extracellular Recordings - https://youtu.be/7zCJ7nZG0YM

Brain Signals: LFP (0 - 11 min) - https://youtu.be/PwkYgrTE2fU

**Instruction for B1 lab**

The assignment for S1 is in the document Biology Expt 1 - Extracellular recordings and LFP. There are 5 questions in the last few pages.

**Question #1**

For question b, the "Animation" based on flash player is no longer available. Go to "Theory" instead and read the article. For question c, finish "Self evaluation" and take a screenshot for your answers and put it in your submission.

**Question #2**

You can first study page 6 for example.

In question 2, A and B represent different stage of the action potential propagation. In the membrane voltage sketch (voltage vs. time), you need to label A and B on the time axis.

Biphasic/triphasic waves mean the wave forms with two/three peaks or troughs, respectively.

**Question #3 & #4**

Answer by explaining the physics behind intracellular/extracellular voltage.

Question 4 is under the assumption that there is no action potential going on, i.e. consider only cases where membrane voltage stays negative in all compartments in the cell. But there is still subthreshold activity going on, meaning the membrane voltage does not simply stay at resting potential but keeps changing. In such case, the extracellular recording can change polarity when the electrode is placed at a different location. But the intracellular recording is always negative no matter in which compartment you place the electrode.