**Fig 1** – Example of connectivity of 2 (? Or one) different types of neurons – showing specificity of inputs and outputs or just one of these? - pic something like what is in the ppt

**Fig 2** – Examples of typical firing patterns for the different cell types – we could include biology here – but I don’t think we have to do that.

**Fig 3** – Part A – a very brief time period – so that the dots of activity can be spread out in time – this should be the response to a low level stimulus. I would not embed the LFP in this part of the figure (but maybe include the EEG).

In part B - we can have the LFP for the different columns shown for perhaps a low (intensity shown) and high intensity. Part B2 – should probably be an example of a biological LFP.

In part C 1– x-axis is intensity, y-axis is peak negative LFP, and plots for each column are shown. Part C2 – should probably be same graph for 2 ‘columns’ within the cortex.

**Fig 4** – LTS neurons function properly. Fig 4A – the effect of increasing function of LTS neurons, Fig 4B – the effect of decreasing function of LTS neurons

**Fig 5** – FS neurons function properly. Fig 5 A – show that at high intensities – or intensities where you get some small spread of activity to adjacent columns normally, - that this spread disappears if you increase FS function in layer IV – so this would be just LFPs before and after increasing FS activity.

5B – show probably neuron spiking and LFPs – for reduced FS amplitude/strength in layer IV – stimulus should propagate to adjacent columns

5C – gamma oscillations – show cellular activity too? Or just LFP and EEG? [What happens if you introduce a stimulation during gamma oscillations?]

**Fig 6** – Generation of epileptiform activity

6A –– 6A1 – computational model result increased duration of LFP – just show normal and increased LFPs alone. 6A2 – same thing in biology

6B – show interictal-like epileptiform activity 6B1 – comp model result, 6B2 – biology – here probably just LFPs

6C – show ictal-like activity – maybe here show spiking also – 6C1 – comp model, 6C2 –biology

6D – Increased effectiveness of NMDA receptors – 6D1 – comp model 6D2 - biology