Hamed, GW

* Harrison’s paper says that the max LFP frequency is around 30 Hz.
  + We can possibly look into lowering the sampling rate to around 100 samples/s, and up the sampling rate when you detect a seizure coming
* Compression:
  + Adaptive Huffman encoding: only 40 % on highly correlate data, otherwise 20 % on random data
  + Vector Quantization: lossy, up to 60 %
* Sample at 1 kHz, fft, and average the bits to see if seizure is coming. If not, only send 100 of those samples, otherwise send everything.
* FOSS II
  + Access data from INTAN chip
  + Get wireless working
    - Characterize bandwidth and system limits
  + Write up FOSS II goals and send GW a list of goals we wish to have by end of semester

ask for ieeg data from behnam and tandon

ask tandon to bring in a needle

ask tandon about trip to hospital to see operation / talk to more neurosurgeons

send the feasibility docs / other docs to tandon / aydin

really need to get bluetooth working

still need to research udp vs tcp handshakes

still have to research point to point communication

just buy the 64 channel intan chip

we can say that we can support 64 channels, capable of sampling 1ksps

if we get bigger battery, better wireless technology

we only need the amplifier board, cable, and adapter

look more into ultrawide band but it seems dead

only company I found is a recent one that started making chips

decawave

<http://www.decawave.com/products/dw1000>

cost $25 for the eval board, chips are $8 - 6Mbps but at ~40-60mA

exists between ble and wifi

<http://electronicdesign.com/communications/what-s-difference-between-measuring-location-uwb-wi-fi-and-bluetooth>

<https://gigaom.com/2014/10/06/ultrawideband-returns-from-the-grave-this-time-as-a-location-play/>

local field potential signals

low frequencies

highest reading is only 30 Hz in a paper

30Hz - 300Hz

Get the data and do a spectral analysis of the data

look into lowering sample rate to 100 if possible

adaptive huffman encoding

performance is too low

IEEE paper - send it to hamed

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