

Supplementary Table 1: Yield of LFP and spike data from NeuroGrid recordings.

	Rat Recording mean±s.d.; (range) n = 10 (cortex, C) n = 3 (hippocampus, HC)	Intra-operative Human Recording mean±s.d.; (range) n = 2
Number of functional electrodes	60	60
Average number of electrodes yielding LFP	HC: 39.7±24.0 (12 – 54) C: 57.0±4.5 (47 – 60)	60 (for both patients)
Average number of electrodes yielding spiking activity	HC: 33.7±19.3 (12 – 49) C: 46.1±9.9 (33 – 56)	19.0±4.2 (16 – 22)
Average number of spikes/channel/s	HC: 31.9±20.1 (6.2 – 101.2) C: 22.4±3.5 (16.8 – 32.2)	5.6±3.3 (2.9 – 11.8)
Average number of clustered units per session	HC: 33.3±11.6 (20 – 41) C: 46.1±9.9 (33 – 56)	Not applicable