## Lateral occipital complex

The human lateral occipital complex (LOC) is more strongly activated by images of objects compared to scrambled controls, but detailed information at the neuronal level is currently lacking. We recorded with microelectrode arrays in the LOC of 2 patients and obtained highly selective single-unit, multiunit, and high-gamma responses to images of objects. Contrary to predictions derived from functional imaging studies, all neuronal properties indicated that the posterior subsector of LOC we recorded from occupies an unexpectedly high position in the hierarchy of visual areas. Notably, the response latencies of LOC neurons were long, the shape selectivity was spatially clustered, LOC receptive fields (RFs) were large and bilateral, and a number of LOC neurons exhibited three-dimensional (3D)-structure selectivity (a preference for convex or concave stimuli), which are all properties typical of end-stage ventral stream areas. Thus, our results challenge prevailing ideas about the position of the more posterior subsector of LOC in the hierarchy of visual areas <sup>1)</sup>.

## 1)

Decramer T, Premereur E, Uytterhoeven M, Van Paesschen W, van Loon J, Janssen P, Theys T. Singlecell selectivity and functional architecture of human lateral occipital complex. PLoS Biol. 2019 Sep 12;17(9):e3000280. doi: 10.1371/journal.pbio.3000280. [Epub ahead of print] PubMed PMID: 31513563.

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Last update: 2024/06/07 02:52

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