

Cover image

Neurons in the cortex of freely behaving animals homeostatically regulate their output such that firing rates return precisely to individual set-points. The electrophysiological traces (derived from real data (Hengen *et al.*, *Cell* 2016) and artistically manipulated) represent recordings of single neurons in the visual cortex of freely behaving rats during a 9-day monocular deprivation experiment. The drop in activity is the acute effect of visual deprivation, and the homeostatic rebound subsequently appears in a step-wise fashion, only occurring during periods of waking (pink overlay). (Images and artwork by Keith Hengen, Washington University in St. Louis, MO.)

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