Photo-inhibiting mouse higher visual regions interrupts feedback projections to superficial layers in V1

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Why study this? Image segmentation processes are crucial to segregate figure from background. Without them, the cat would never pop-out! (search for the cat on the right)

1. Background
2. Multi-site laminar recording in V1
3. General surround suppression (GSS)
4. Orientation-dependent facilitation of GSS (O-DF)
5. Pharmacological inhibition superficial layers
6. Photo-inhibition (Arch) of SST cells (V1)
7. Photo-inhibition of higher visual areas

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1. Surround suppression
2. Determination of RFs and layer boundaries
3. Size tuning under anesthesia (light vs. deep)
4. Orientation-context effect on surround suppression
5. Topical application of lidocaine does not abolish GSS nor O-DF in L4 and deep layers
6. Optogenetic silencing of somatostatin-inhibitory cells by viral transduction of flex-Arch in SST-cre mice did not affect GSS nor O-DF (same anesthetic state and virus in all layers)
7. Optogenetic silencing of higher visual areas (LM and/or AL) in awake mice (flex-ChR2 in GAD2-cre) releases superficial layers from GSS