

Figure S1. Related to Figure 2. Morphological analysis of superficial and deep CA1 PN apical dendrites (A) Examples of deep and superficial CA1 PN morphologies. (B) Quantification of apical dendritic length by stratum (n=8 sPN, 8 dPN). Error bars represent \pm SEM.

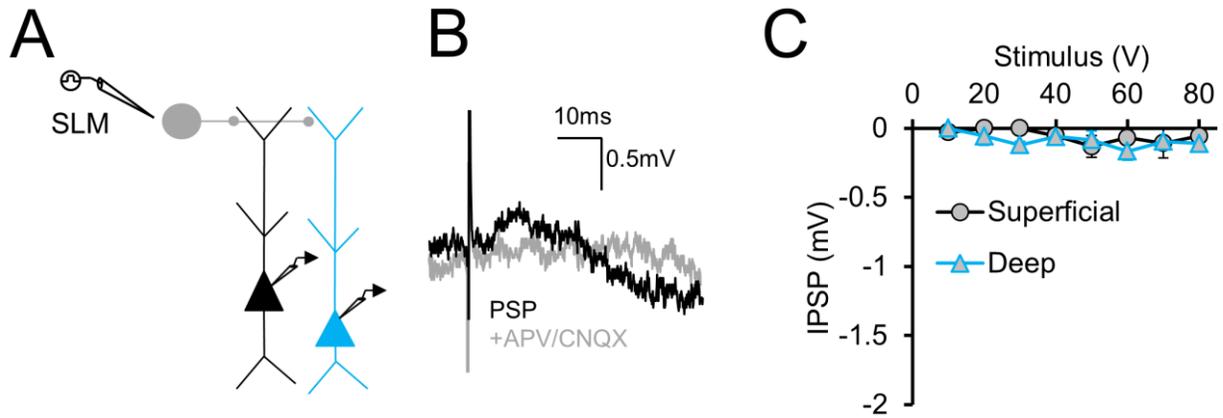


Figure S2. Related to Figure 4. SLM stimulation-evoked inhibition to superficial and deep CA1 PNs has a minimal monosynaptic component

(A) Diagram of experimental paradigm in which inhibitory responses to SLM stimulation are recorded in the presence of blockers of excitatory transmission. (B) Example showing the absence of directly-activated monosynaptic inhibition in a superficial CA1 PN in the presence of ionotropic glutamate receptor antagonists D-APV (50 μ M) and CNQX (10 μ M). (C) Input-output curves of SLM stimulation-evoked monosynaptic IPSPs in superficial and deep CA1 PNs (n=7 each). Error bars represent \pm SEM.

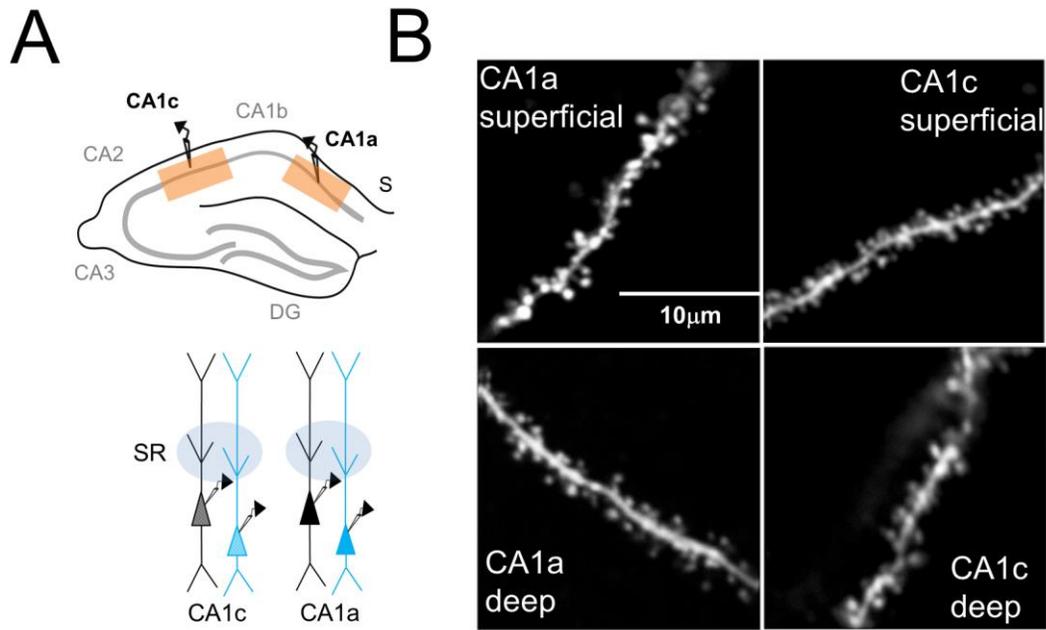


Figure S3. Related to Figure 6. Spine imaging of CA1 PN apical dendrites in SR of CA1a and CA1c
(A) Schematic of regions targeted for spine density measurement (above and below). **(B)** Two-photon image of an oblique dendrite in SR of a CA1a superficial PN (upper left), CA1a deep PN (lower left), CA1c superficial PN (upper right), and CA1c deep PN (lower right).

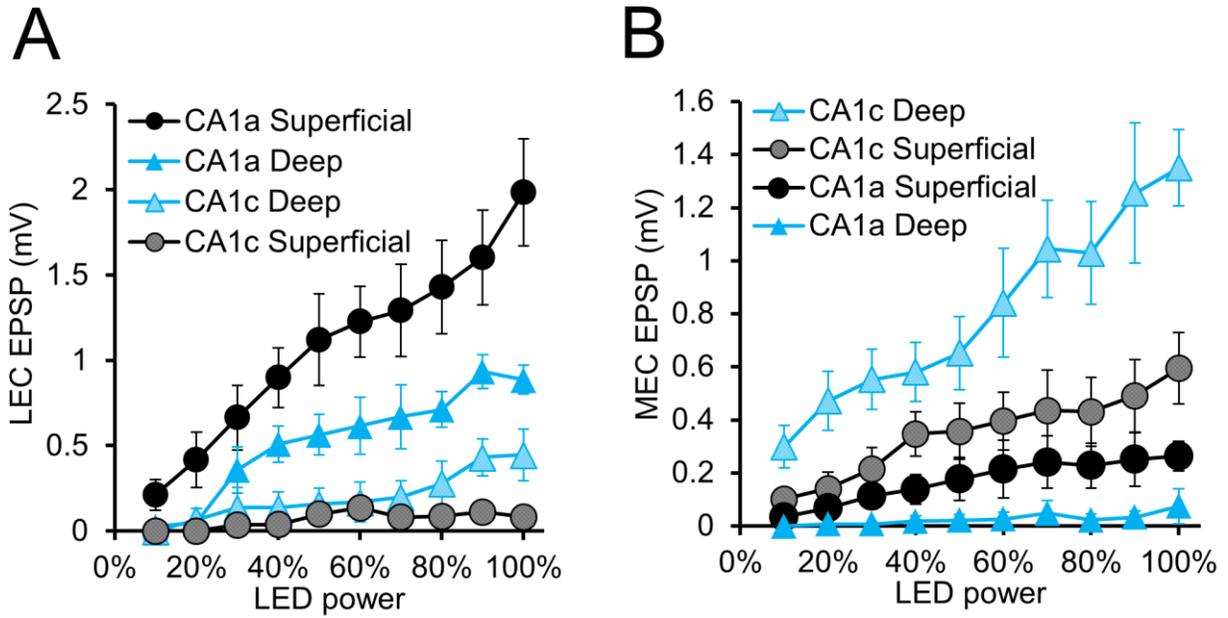


Figure S4. Related to Figure 7. Voltage responses in CA1 PNs to optical stimulation of LEC and MEC axons expressing Chr2

(A) Somatically-recorded EPSPs of CA1a and CA1c superficial and deep PNs in response to a range of intensities of 2 ms long light pulses with LEC axons expressing Chr2 (n=8 CA1a sPNs, 6 CA1a dPNs, 7 CA1c sPNs, 7 CA1c dPNs). (B) Somatically-recorded EPSPs of CA1a and CA1c superficial and deep PNs to photostimulation of MEC axons expressing Chr2 (n=6 each).