

## **Supplementary Information**

**Title:** Inhibitory luminopsins: genetically-encoded bioluminescent opsins for versatile, scalable, and hardware-independent optogenetic inhibition.

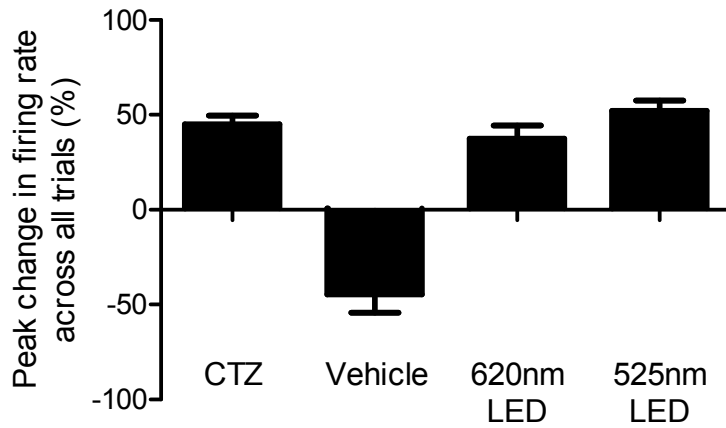
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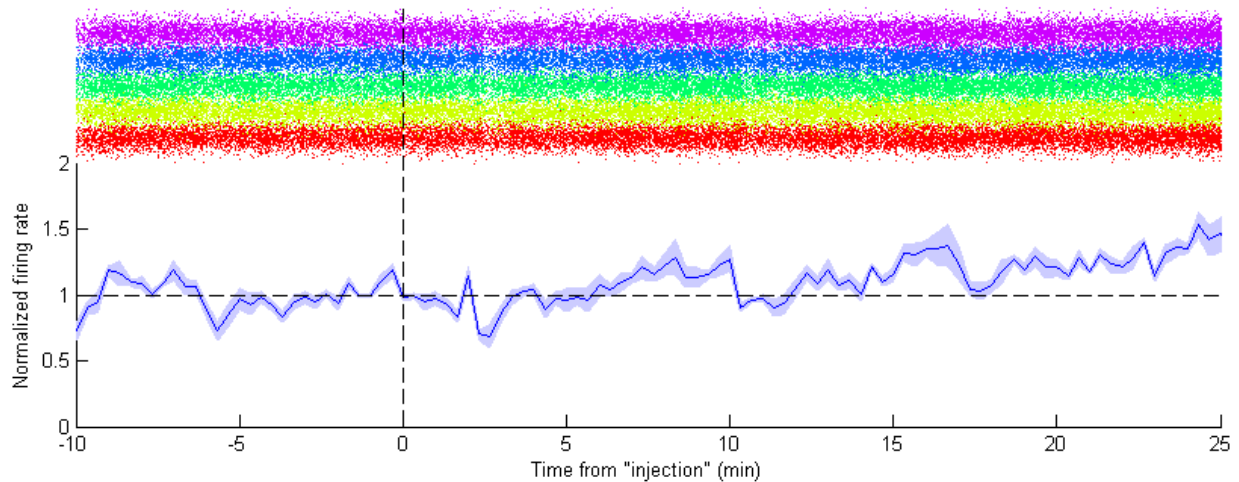
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**Supplementary Figure 1:** Average peak change in single-unit firing rate across all trials of light stimulation, CTZ injections, and vehicle injections ( $n = 5$  trials each, 24 units across all trials) in the animal shown in Figure 4c-d.



**Supplementary Figure 2: Hippocampal activity gradually increases under isoflurane anesthesia.** Normalized single-unit firing rate ( $n = 5$  units) over time for an animal on 1% isoflurane demonstrates a gradual increase in firing rate over time. Single-unit firing rate was similarly normalized to the median of a 10 minute baseline preceding an arbitrary “injection” time. SEM is shaded. Top: corresponding raster (each color corresponds to a different unit).