## **Supporting Information**

## Barot et al. 10.1073/pnas.0808996106



**Fig. S1.** Arc localization 5 min and 30 min after saccharin/LiCl presentation in IC and BLA. Five minutes after exposure to either LiCl or tastant, Arc signal is restricted almost entirely to the nucleus in both IC (A) and BLA (B). By 30 min, however, Arc signal is found only in the cytoplasm in both areas for both stimuli. Thus, by presenting one stimulus 30 min before killing and the other 5 min before killing, neuronal responses to the stimuli can be distinguished by the location of Arc staining. Under such timing parameters, neurons showing both nuclear and cytoplasmic staining must be responding to both the taste and LiCl.



**Fig. S2.** Schematic drawing of brain sections assayed. Darkly shaded areas represent the areas of agranular IC (*A*) and BLA (*B*) that were analyzed for this study. All whole neurons within a  $20-\mu$ m slice of the shaded regions were sampled. The disgranular region of IC (lightly shaded) was not used in this study because of a lack of Arc activation in response to US-LiCl information. Figures are adapted from Paxinos and Watson, 1997.

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**Fig. S3.** Number of *Arc* positive neurons showing sensitivity to the CS and US in disgranular IC. (A) Total number of cells in disgranular IC staining positively for *Arc* in cytoplasm and nucleus across groups (n = 7 rats/group). In disgranular IC, animals in the US-only group show no Arc reactivity. Arc responses of animals receiving CS or CS–US pairing do not differ from control animals that received water and a saline injection, indicating that *Arc* reactivity to the CS in this area is not selective for the specific qualities of CS taste. (*B*) Number of neurons showing both nuclear and cytoplasmic staining does not differ significantly across groups. All comparisons were made via analysis of variance (ANOVA) followed by Tukey's post hoc analysis. Data are represented as means  $\pm$  SEM.