# Supplementary Figure 1

Flavor preferences conditioned by nutritive and non-nutritive sweeteners in mice

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**Preference for fructose vs. sucralose + saccharin paired CS+ flavors in male and female C57BL/6J mice**

Naive male (n=7) and female (n=9) B6 mice were trained and tested with solutions containing one flavor in 0.1% sucralose + 0.1% saccharin (CS+SS/SS) and another flavor in 8% fructose (CS+F/FRU). About half the mice had 0.5% cherry Kool-Aid added to SS and 0.5% grape Kool-Aid added to fructose; the remaining mice had the flavors reversed. The mice were given six one-bottle training days with the CS+SS/SS (days 1, 3, 5) and CS+F/FRU (days 2, 4, 6). They were next given two-bottle choice tests with the CS+F flavor in water (CS+F/H2O) vs. the CS+SS flavor in water (CS+SS/H2O) over 4 days (Tests 1 and 2). The mice were then given another 2-day preference test with CS+SS/SS vs. CS+F/FRU. Finally, they received a 2-day test with unflavored SS vs. fructose. One day of water only preceded the latter two choice tests.

Supplementary Figure 1. Mean intakes (+sem) of CS+ solutions during one-bottle training and two-bottle tests. (Order of training and testing is from left to right in the panel.) During one-bottle training sessions the mice consumed similar amounts of the CS+SS/SS and CS+F/FRU and there were no sex differences in sweetener intakes. During the two-bottle tests with the CS flavors in water, overall the mice consumed more CS+F/H2O than CS+SS/H2O in Tests 1 and 2 ($F(1,14) = 23.6$, $P < 0.001$); total intakes declined from the first to second test ($F(1,14) = 7.2$, $P < 0.05$) but there was no CS x Test interaction. The male and female mice did not differ in their absolute intakes of the CS+/H2O solutions or in their percent preferences for the CS+F flavor. In the two-bottle sweetener tests the mice consumed more CS+SS/SS than CS+F/FRU ($F(1,14) = 5.4$, $P < 0.05$), and more unflavored SS than fructose ($F(1,14) = 5.2$, $P < 0.05$). There were no sex differences in the absolute or percent intakes of the flavored and unflavored sweeteners. Significant ($P < 0.05$) intake differences in the training and two-bottle tests are indicated by an asterisk (*).

**Supplementary Figure 1**

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