Dear Journal of Neuroscience,

We thank Dr. Ben Seymour for the many insightful comments in the Journal Club on our paper published in the Journal of Neuroscience.

The review points to a number of interesting questions for further research. Among these, is the type of information encoded by the circuitry that mediates CS-potentiation of eating. Indeed, we are currently examining whether food-related cues enhance eating by inducing general motivation to consume any food, or by stimulating consumption of the training food specifically. Interestingly, our data thus far suggest that CS-enhanced eating is food-specific; the CS stimulates eating of the food, US, but not other novel or familiar foods. These results suggest that CS-potentiation of eating does not induce a general motivation to eat, akin to hunger, but instead produces a more specific motivational state, perhaps akin to appetite or craving.

Clearly, future research is needed to more fully elucidate the mechanisms that underlie CS-enhanced eating. Indeed the goal of our approach is to flesh out the neural systems and functions in biological terms that underlie processes such as those shown in Figure 1.

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