An engram is a physical trace of a memory – it consists of a subset of neurons that are active at the time a specific experience is encoded in the brain. These same neurons can be recruited at a later time to influence future behavior based on a learned experience. The hippocampus is a critical brain region for learning and memory and more recently has been shown to contribute to the control of feeding behaviors. Research in both rodents and humans supports a role for hippocampal-dependent memory in the regulation of food consumption. Thus, consumption of a meal could lead to the formation of an engram in the hippocampus to subsequently guide feeding behaviors. In this talk, I will outline work conducted in rats investigating the function of subsets of neurons in the ventral region of the hippocampus that modulate feeding behaviors. First, I will discuss the relevance of a neurocircuitry connecting the ventral hippocampus to the lateral septum to facilitate foraging-related memory. Second, I will present work identifying specific neurons of the ventral hippocampus active in response to food consumption and demonstrate their role in regulating foraging-related memory and meal patterns.

HEB Seminar Series
May 2, 2022 | 12:00 – 1:00 PM
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