

The effect of a PACAP infusion into the lateral ventricles in respect to a change in weight

Abstract

In recent years, weight has become a commonly discussed issue in response to its affect on human health and influence on daily life. The Hammack Laboratory has specifically examined stress and its effect on the bed nucleus of the stria terminalis, BNST, and a peptide, pituitary adenylate cyclase activating polypeptide (PACAP), and their contributions to changes in weight. Previous research has found that infusing PACAP38 into the BNST, causes anxiety and stress behaviors along with weight loss after infusion. It is possible that when infusing PACAP38 into the BNST, the behavioral effects could have been mediated by some of the peptide leaking into the nearby ventricular system. In order to determine if the BNST is the true site of action for the weight reducing effects of the PACAP38 infusion, I will determine whether the same dose of PACAP38 produces the same effects when it is infused into the lateral ventricles. We hypothesize that the infusion will not produce a weight loss effect due to the findings of previous research done in the lab.