

Abstract

In *C. elegans*, during exploratory behavior the switch from local to global search for food is an important for survival and being mediated by the neuropeptides. Previous studies have shown that the FLP-18 neuropeptide is regulating the reversal frequency in global search behavior through NPR-4, one of its G protein coupled receptor . Here we are looking for receptors of FLP-18 and other probable neuropeptides that play role in neuromodulation of exploratory behavior. In our studies, we found FLP-1 and FLP-21 neuropeptides along with FLP-18 regulates reversal frequency during both local and global search of exploratory behavior. Furthermore, FLP-18 also functions through NPR-1 receptor along with NPR-4 receptor. The implication of these studies is that information ow through *C. elegans* circuits depends on neuromodulatory states.