

Homarus Americanus

Central pattern generators (144.6.24 11.9 /TT1 1 .9 (pa) j ET Q q 0.24 0 0 .9 (pa) j ET Q q 0.TT2 1 Tf () (r)T0.1.rCentral

Preliminary work investigating this prediction looked at the effects of the neuromodulators on stretch, using reduced preparation with just muscles under small cells. The muscle and stretch-sensitive dendrites were subjected to rounds of stretch characterized by an increase in stretch, a hold period, and a release from stretch. In this study, the response to stretch during the hold period in control saline was measured by the bursting pattern generated by the CG, including the interburst interval and burst duration. During the hold period, the pattern reflected an increase in the interburst interval and a decrease in burst duration compared to the control before the stretch (Qu, 2017). Though it was predicted that SGRN enhanced feedback, whereas GYS inhibited feedback in the muscle (Dickinson, et. al., 2015), preliminary data looking into these effects has suggested that both SGRN and GYS inhibited the stretch response by decreasing the changes in burst characteristics elicited by stretch (Dickinson, et. al., 2015, Qu, 2017).

With these contradictory results, the goal of this study was to further look into how these two neuropeptides, SGRN and GYS, modulate the response to stretch in order to understand whether or not feedback itself is modulated. This