

# Mechanisms underlying variable responses to isoforms of the neuropeptide C-type allatostatin (AST-C) in the American lobster, *Homarus americanus*

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The crustacean heart is unique, in that its pacemaking and central pattern generation are solely dependent on the cardiac ganglion. The crustacean cardiac ganglion is a branch-like trunk in the heart. This cardiac ganglion is made up of 9 neurons that provide extremely rhythmic and patterned, reoccurring action potentials (Cooke, 2002). Central pattern generators (CPGs) produce patterned and predictable outputs that generate behaviors such as walking, chewing, and breathing.



