# Influence of electrical synapses of projecting symmetrical pair of neurons on modulation of feeding generator

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Projecting modulatory neurons for feeding central patter generator were earlier identified in cerebral and pleural ganglia in a representative of gastropod mollusks pond snail *Lymnaea stagnalis*. Unlike local modulatory neuron - Slow Oscillator situated either in left or right buccal ganglion, projecting neurons of cerebral and pleural ganglia are symmetrical pairs that are situated both in left and right cerebral or pleural ganglia. These neurons by means of projections have chemical contacts with buccal interneurons and motoneurons of feeding central pattern generator, while through electrical synapses affect activity of contralateral one. Activation one of them causes activation of contralateral one. It should be mentioned that projections of symmetrical pairs of neurons encompass both ipsilateral and contralateral buccal ganglia and as was earlier shown by English researchers, electrical synapsis of left and right cerebral gigantic serotoninergic neurons are localized in buccal ganglia. Based on the fact that each of the neuron project to both buccal ganglia activation of only one of them should have been enough to modulate feeding generator. However, it is not so. Presumably, electrical synapses between modulatory projecting neurons double the amount of released neurotransmitter in the target buccal ganglia that should lead to activation of more chemical synapses and in case of volume transmission - more target cells.