

# Characteristic changes of electrical activity of feeding neurons of the central nervous system of the pond snail when creating state of satiety

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Neuronal and neuromediator bases of feeding behavior has been thoroughly studied in a representative of gastropod mollusks pond snail, but there is not much known how neuronal activity is modulated during hunger and satiation. To establish satiation state at first experimental animals were starved for 1-3 days. Then D-glucose was applied to isolated central nervous system and activity of neurons associated with feeding behavior was recorded. As a result, it was revealed that some neurons do not react to glucose application, while others have some effects. In particular, these effects were fast and delayed. Fast effects were mainly hyperpolarizing. Similar effects have been observed in central neurons activity of which is not directly related to the central pattern generator of feeding [1]. As for the delayed effects, in some preparations it was demonstrated a powerful input that was reflected on the activity of feeding neurons. It has been suggested that changes in the electrical activity of neurons in the central nervous system of pond snail are connected with different mechanisms that can be clarified in future studies.

## Literature:

[1] M.Alania, V. Dyakonova, D.A. Sakharov. Acta Biol. Hung. 55 (1–4), pp. 195–200 (2004).