

## Accepted Manuscript

Title: PECULARITIES OF THE STRUCTURE OF GLYCOGEN AS AN INDICATOR OF THE FUNCTIONAL STATE OF MAUTHNER NEURONS IN FISH *Perccottus glehni* DURING WINTERING

Authors: Irina M. Santalova, Rita Ya. Gordon, Irina B. Mikheeva, Sergei S. Khutsian, Eugene I. Maevsky

PII: S0304-3940(17)30922-9  
DOI: <https://doi.org/10.1016/j.neulet.2017.11.024>  
Reference: NSL 33232

To appear in: *Neuroscience Letters*

Received date: 29-6-2017  
Revised date: 2-11-2017  
Accepted date: 8-11-2017

Please cite this article as: Irina M.Santalova, Rita Ya.Gordon, Irina B.Mikheeva, Sergei S.Khutsian, Eugene I.Maevsky, PECULARITIES OF THE STRUCTURE OF GLYCOGEN AS AN INDICATOR OF THE FUNCTIONAL STATE OF MAUTHNER NEURONS IN FISH *Perccottus glehni* DURING WINTERING, *Neuroscience Letters* <https://doi.org/10.1016/j.neulet.2017.11.024>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



PECULARITIES OF THE STRUCTURE OF GLYCOGEN AS  
AN INDICATOR OF THE FUNCTIONAL STATE OF MAUTHNER  
NEURONS IN FISH *Perccottus glehni* DURING WINTERING

Irina M. Santalova<sup>a</sup>, Rita Ya. Gordon<sup>b</sup>, Irina B. Mikheeva<sup>a</sup>, Sergei S. Khutsian<sup>a,b</sup>, Eugene I. Maevsky<sup>a</sup>

<sup>a</sup>Institute of Theoretical and Experimental Biophysics, Russian Academy of Sciences, Pushchino, Moscow Region, Russia;

<sup>b</sup>Institute of Cell Biophysics, Russian Academy of Sciences, Pushchino, Moscow Region, Russia

- Corresponding authors:
- Santalova I.M. e-mail address: [cima@rambler.ru](mailto:cima@rambler.ru);
- Gordon R.Ya. e-mail address: [ritagordon@yandex.ru](mailto:ritagordon@yandex.ru)

**Highlights•**

- Mauthner neurons were used as a model for studying the cell adaptation during wintering.
- In summer, glycogen is present in neurons as single granules.
- At the wintering, concentrated fields are formed from glycogen granules.
- There is a relationship between glycogen fields and smooth reticulum.
- There is the invagination of mitochondria immediately into glycogen fields.
- Mauthner neurons may have their own systems of glycolysis, glycogenesis, and storage of glycogen.

**Abstract**---Mauthner neurons (MN)<sup>\*</sup>, specific multifunctional neurons of fish, are a unique object for investigating the adaptive potentialities of the cell. The goal of the work

Download English Version:

<https://daneshyari.com/en/article/8841935>

Download Persian Version:

<https://daneshyari.com/article/8841935>

[Daneshyari.com](https://daneshyari.com)