

## Accepted Manuscript

Food deprivation and prior anoxic coma have opposite effects on the activity of a visual interneuron in the locust

Kevin P. Cross, Samantha Britton, Rebecca Mangulins, Tomas G.A. Money, R. Meldrum Robertson

PII: S0022-1910(16)30324-9

DOI: <http://dx.doi.org/10.1016/j.jinsphys.2017.02.006>

Reference: IP 3616

To appear in: *Journal of Insect Physiology*

Received Date: 29 September 2016

Revised Date: 5 February 2017

Accepted Date: 8 February 2017

Please cite this article as: Cross, K.P., Britton, S., Mangulins, R., Money, T.G.A., Robertson, R.M., Food deprivation and prior anoxic coma have opposite effects on the activity of a visual interneuron in the locust, *Journal of Insect Physiology* (2017), doi: <http://dx.doi.org/10.1016/j.jinsphys.2017.02.006>

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.



1 **Food deprivation and prior anoxic coma have opposite effects on the activity**  
2 **of a visual interneuron in the locust**

3  
4 Kevin P. Cross<sup>1</sup>, Samantha Britton<sup>2</sup>, Rebecca Mangulins<sup>2</sup>, Tomas G. A. Money<sup>2</sup>, R. Meldrum  
5 Robertson<sup>1,2</sup>

6  
7 <sup>1</sup>Centre for Neuroscience Studies and <sup>2</sup>Department of Biology, Queen's University, Kingston,  
8 Ontario, Canada, K7L 3N6

9  
10 **Highlights:**

- 11 • Anoxic coma diminishes and food deprivation increases high-frequency firing  
12 • Anoxic coma reduces supernormal conduction  
13 • Food deprivation reduces half-width and decay time

14  
15 **Keywords:** high-frequency firing, metabolic stress, axons, DCMD, supernormal conduction

16 **Corresponding author:**

17 Kevin P. Cross

18 Rm 223, Botterell Hall

19 Queen's University

20 Kingston, Ontario, Canada

21 K7L 3N6

22 Tel: 6135727064

23 Email: [13kc18@queensu.ca](mailto:13kc18@queensu.ca)

24

25 **Abbreviations:** DCMD: descending contralateral movement detector; LGMD: lobula giant  
26 movement detector; CV: conduction velocity; AP: action potential; CNS: central nervous system.

Download English Version:

<https://daneshyari.com/en/article/5593193>

Download Persian Version:

<https://daneshyari.com/article/5593193>

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