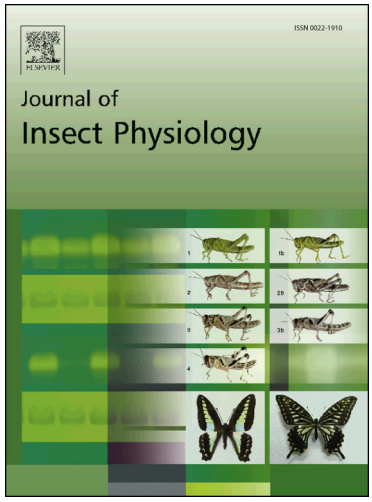

Food deprivation and prior anoxic coma have opposite effects on the activity of a visual interneuron in the locust

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

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

Kevin P. Cross[1], Samantha Britton[2], Rebecca Mangulins[2], Tomas G. A. Money[2], R. Meldrum Robertson[1, 2]

[1]Centre for Neuroscience Studies and [2]Department of Biology, Queen's University, Kingston, Ontario, Canada, K7L 3N6

Highlights:

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

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

Corresponding author:
Kevin P. Cross
Rm 223, Botterell Hall
Queen's University
Kingston, Ontario, Canada
K7L 3N6
Tel: 6135727064
Email: 13kc18@queensu.ca

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