## Accepted Manuscript

Title: Title: Glutathione depletion: starting point of brain metabolic stress, neuroinflammation and cognitive impairment in rats.

Authors: Maria Elena González-Fraguela, Lisette Blanco, Caridad Ivette Fernández, Lourdes Lorigados, Teresa Serrano, Jessica López Fernández

PII: S0361-9230(17)30252-6

DOI: https://doi.org/10.1016/j.brainresbull.2017.11.015

Reference: BRB 9332

To appear in: Brain Research Bulletin

Received date: 1-5-2017 Revised date: 22-11-2017 Accepted date: 23-11-2017

Please cite this article as: Maria Elena González-Fraguela, Lisette Blanco, Caridad Ivette Fernández, Lourdes Lorigados, Teresa Serrano, Jessica López Fernández, Title: Glutathione depletion: starting point of brain metabolic stress, neuroinflammation and cognitive impairment in rats., Brain Research Bulletin https://doi.org/10.1016/j.brainresbull.2017.11.015

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.



Title: Glutathione depletion: starting point of brain metabolic stress, neuroinflammation and

cognitive impairment in rats.

Author names and affiliations: Maria Elena González – Fraguela<sup>a</sup>, Lisette Blanco<sup>b</sup>, Caridad

Ivette Fernández, Lourdes Lorigados<sup>a</sup>, Teresa Serrano<sup>a</sup>, Jessica López Fernández<sup>c</sup>.

a Immunochemistry Department. International Center of Neurological Restoration, Avenue

25 No. 15805 e/ 158 and 160. Playa, Havana CP 11300, Cuba.

b Experimental Neurophysiology Department. International Center of Neurological

Restoration, Avenue 25 No. 15805 e/ 158 and 160. Playa, Havana CP 11300, Cuba.

c Assistant student of Neurology at the Medico-Surgical Research Center. 3rd student of

Medicine, Faculty of Medical Sciences Victoria de Giron, Playa, Hayana CP 11300, Cuba

\*Corresponding author and reprint request to Maria Elena González-Fraguela

**Immunochemistry Department. International Center for Neurological Restoration** 

Ave 25 No 15805 % 158 y 160. Cubanacan. Playa. Havana Cuba CP 11300

Phone: (537) 271 5353

Email: marie@neuro.ciren.cu, rmunoz@infomed.sld.cu

Highlight

Transient glutathione depletion causes cognitive impairment in rats.

• Cognitive impairment is associated with a selective vulnerability of hippocampus

to maintain redox homeostasis.

Glutathione depletion generates glial activation and neuroinflammation correlated

with a subtle cognitive deficit.

Abstract

Glutathione provides protection from oxidative stress-induced damage through the reduction of

reactive oxygen species for the maintenance of oxidant homeostasis. Our purpose was to test the

effects of depleting tissue GSH by buthionine sulfoximine on brain oxidative metabolism and cognitive

1

## Download English Version:

## https://daneshyari.com/en/article/8838987

Download Persian Version:

https://daneshyari.com/article/8838987

<u>Daneshyari.com</u>