

# Accepted Manuscript

Neuroinflammation produced by heavy alcohol intake is due to loops of interactions between toll-like 4 and TNF receptors, peroxisome proliferator-activated receptors and the central melanocortin system: A novel hypothesis and new therapeutic avenues

Oswaldo Flores-Bastías, Eduardo Karahanian

PII: S0028-3908(17)30512-9

DOI: [10.1016/j.neuropharm.2017.11.003](https://doi.org/10.1016/j.neuropharm.2017.11.003)

Reference: NP 6930

To appear in: *Neuropharmacology*

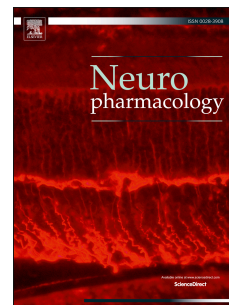
Received Date: 11 September 2017

Revised Date: 26 October 2017

Accepted Date: 3 November 2017

Please cite this article as: Flores-Bastías, O., Karahanian, E., Neuroinflammation produced by heavy alcohol intake is due to loops of interactions between toll-like 4 and TNF receptors, peroxisome proliferator-activated receptors and the central melanocortin system: A novel hypothesis and new therapeutic avenues, *Neuropharmacology* (2017), doi: 10.1016/j.neuropharm.2017.11.003.

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.



**Neuroinflammation produced by heavy alcohol intake is due to loops of interactions between Toll-like 4 and TNF receptors, peroxisome proliferator-activated receptors and the central melanocortin system: A novel hypothesis and new therapeutic avenues**

**Oswaldo Flores-Bastías<sup>1,2</sup> and Eduardo Karahanian<sup>1,2, \*</sup>**

<sup>1</sup>Institute of Biomedical Sciences, Faculty of Health Sciences & <sup>2</sup>Research Center for the Study of Alcohol Drinking Behavior in Adolescents. Universidad Autónoma de Chile. Llano Subercaseaux 2801, San Miguel, Santiago, Chile.

\*Corresponding author. E-mail address: eduardo.karahanian@uautonoma.cl

**ABSTRACT**

Excessive alcohol intake induces an inflammatory response in the brain, via TNF $\alpha$ , TLR4 and NF- $\kappa$ B signaling pathways. It has been proposed that neuroinflammation would play a very important role in the development of alcohol addiction. In addition to stimulating the synthesis of inflammatory mediators such as IL-6, IL-1 $\beta$  and TNF $\alpha$ , NF- $\kappa$ B is capable of reducing the anti-inflammatory activity of PPAR $\alpha$  and PPAR $\gamma$ . Reciprocally, PPAR $\alpha$ , PPAR $\gamma$  and melanocortin 4 receptor (MC4R) can decrease the proinflammatory activity of NF- $\kappa$ B, establishing an interplay of inactivations between such

Download English Version:

<https://daneshyari.com/en/article/8517424>

Download Persian Version:

<https://daneshyari.com/article/8517424>

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