



## Correction to: Adolescent Binge Alcohol Exposure Affects the Brain Function Through Mitochondrial Impairment

Cheril Tapia-Rojas<sup>1,2</sup> · Francisco J. Carvajal<sup>1,3</sup> · Rodrigo G. Mira<sup>1,3</sup> · Camila Arce<sup>1,3</sup> · José Manuel Lerma-Cabrera<sup>1</sup> · Juan A. Orellana<sup>1,4</sup> · Waldo Cerpa<sup>1,3</sup> · Rodrigo A. Quintanilla<sup>1,2</sup>

Published online: 15 August 2018  
© Springer Science+Business Media, LLC, part of Springer Nature 2018

**Correction to: Mol Neurobiol (2018) 55(5): 4473–4491**  
<https://doi.org/10.1007/s12035-017-0613-4>

The authors declare that the original version of this article contained a mistake in the data of the Figure 2, particularly in the LTP data. Therefore:

1. The following original sentence from the abstract is incorrect: “*Our results showed that binge-like ethanol pre-treated (BEP) rats exhibited early alterations in learning and memory tests accompanied by an impairment of synaptic plasticity that was total and partially compensated respectively*”. The corrected sentence is: “*Our results showed that binge-like ethanol pre-treated (BEP) rats exhibited early alterations in learning and memory tests accompanied by an impairment of synaptic function that was total and partially compensated respectively*”.

2. Results section 2. Alcohol binge drinking impairs synaptic transmission in adolescent rats is partially wrong, because further analysis of LTP data showed some inconsistencies and therefore need to be corrected. Specifically, the sentence “*we evaluated the synaptic plasticity in SP and BEP animals by studying the long-term potentiation (LTP) magnitude in the hippocampal CA3-CA1 transmission. We observed a partial LTP response at 1 week after BEP (Fig. 2Aa and 2Ad), and a loss of LTP signal 7 weeks after BEP (Fig. 2Ac and 2Ad). In contrast, group animals of 3 weeks after BEP shown no differences in LTP induction (Fig. 2Ab and 2Ad) compared with SP rats*” needs to be removed.

3. The Figure 2, which essentially showed LTP data is incorrect. The corrected Fig. 2 is given below:

---

The online version of the original article can be found at <https://doi.org/10.1007/s12035-017-0613-4>

---

✉ Waldo Cerpa  
wcerpa@bio.puc.cl

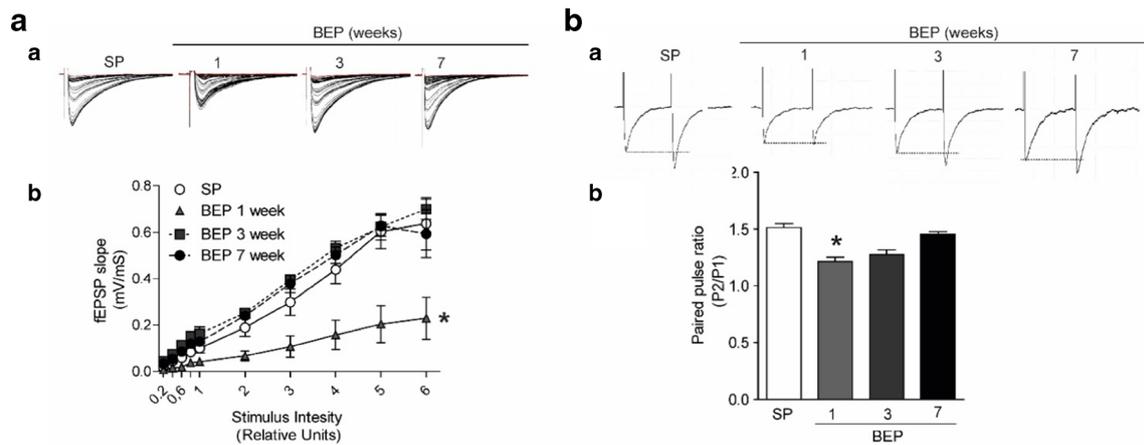
✉ Rodrigo A. Quintanilla  
rodrigo.quintanilla@uautonoma.cl

<sup>1</sup> Centro de Investigación y Estudio del Consumo de Alcohol en Adolescentes (CIAA), Santiago, Chile

<sup>2</sup> Laboratory of Neurodegenerative Diseases, CIB, Universidad Autónoma de Chile, El Llano Subercaseaux 2801, 5to Piso, San Miguel, 8910000 Santiago, Chile

<sup>3</sup> Laboratorio de Función y Patología Neuronal, Departamento de Biología Celular y Molecular, Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile, 8331150 Santiago, Chile

<sup>4</sup> Departamento de Neurología, Escuela de Medicina, Pontificia Universidad Católica de Chile Santiago, Santiago, Chile



**Fig. 2 Ethanol binge-like treatment (BEP) alters the synaptic transmission in adult rats.** (Aa) Representative fEPSP at different stimulus intensities for SP and BEP animals at several times after treatment. (Ab) Input-output curves are showing the relationship between fEPSP slope and stimulus intensity. (Ba) Representative fEPSP traces at interstimulus intervals of 50 ms. (Bb) Paired-pulse facilitation (PPF) of the fEPSP of

hippocampal slices from SP and BEP animals 1, 3 and 7 weeks after treatment. The dots and bars represent the mean  $\pm$  SE from 7 different slices. Three animals were used per experimental group. Statistical significant differences were calculated by one-way ANOVA, followed by Bonferroni's post hoc test (\* $p < 0.05$ ; \*\* $p < 0.01$ )