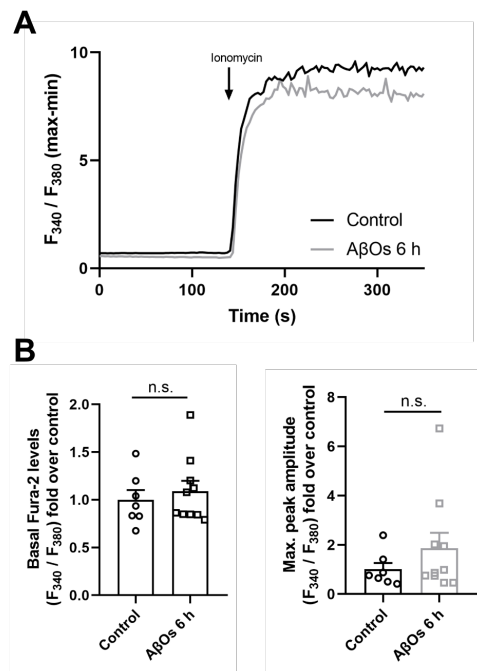


**Supplementary Figure 1. Cytoplasmic Ca<sup>2+</sup> levels in primary hippocampal neurons.** A) Representative records of the relative change in Fura2 fluorescence ( $F_{340}/F_{380}$ ) with time, displayed by control neurons or neurons treated for 6 h with A $\beta$ Os (500 nM). The arrow indicates the time of ionomycin addition. B) The basal Fura2 fluorescence levels and the maximal peak amplitude following ionomycin addition were quantified. The average values obtained from a minimum of seven experiments performed in independent cultures show no significant differences between control neurons and neurons preincubated with A $\beta$ Os. Data are expressed as Mean  $\pm$  SE. Statistical analysis was performed with Mann-Whitney Test. N.s. not significant.



**Supplementary Table 1:** Sequence of primers used to determine the mRNA levels of the RyR2, BDNF exon IV, Npas4, Nqo1 and  $\beta$ -actin. (ref ncbi)

Gene	NCBI Reference Sequence	forward (5' $\rightarrow$ 3'):	reverse (3' $\rightarrow$ 5'):
RyR2	NM_001191043.3	AATCAAAGTGGCGGAATTCTTG	TCTCCCTCAGCCTTCTCCGGTTC
Npas4	NM_153626.1	CCGCCATGCAATTTCCACTA	CGGTCCCCAAGGTTCTAGACT
Nqo1	NM_017000.3	CTTTCAGAATAAGAAGACCTTGC	TGCTGTACACCAGTTGAGGTT
$\beta$ -actin	NM_031144.3	ftCTACAATGAGCTGCGTGTG	TACATGGCTGGGGTGTGAA

**Supplementary Video 1:** Treatment with A $\beta$ Os disrupts the transient nuclear Ca<sup>2+</sup> signals induced by GBZ in hippocampal neurons.

<https://www.dropbox.com/home/Andrea%20Paula%20Lima/Papers/Paper%20Pedro%20AbOs%20Nuclear%20Calcium?preview=VIDEO-2023-08-28-20-27-22.mp4>