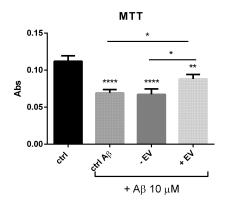


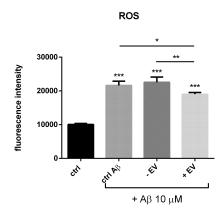
Supplementary figure I - Effect of inhibition of PI3K/Akt on apoptosis and ROS of FAD neurons.

FAD primary neurons (4 DIC) were treated with 150 nM wortmannin for 2 h before the exposure to EV and ROS and apoptosis assays were performed after 4 days.

A - Representative graph showing the percentage of positive cells to AnnexinV/Propidium Iodide assay, as described in the 2.12 section. \*p value<0.05.

B - ROS content was measured with fluorescent probe, as described in 2.8 section, after 4 days of EV exposure. \*\*p value<0.01; \*\*\*p value <0.001.





Supplementary figure II - Effect of the hAFSC secretome on A $\beta$ - induced neuron toxicity and ROS level.

The neuroblastoma cell line SH- SY 5Y were exposed to 10  $\mu$ M A $\beta$  1-42 for 24 h. The same protein concentration of + EV and – EV, obtained as described in 2.3 section, was added to neuronal cells 3 days before A $\beta$  treatment. MTT (A) and ROS (B) assays were then performed. The graphs represent the mean of 3 experiments ± SEM of absorbance and fluorescence intensity, respectively. \*p value<0.05; \*\*p value<0.01; \*\*\*p value<0.001.