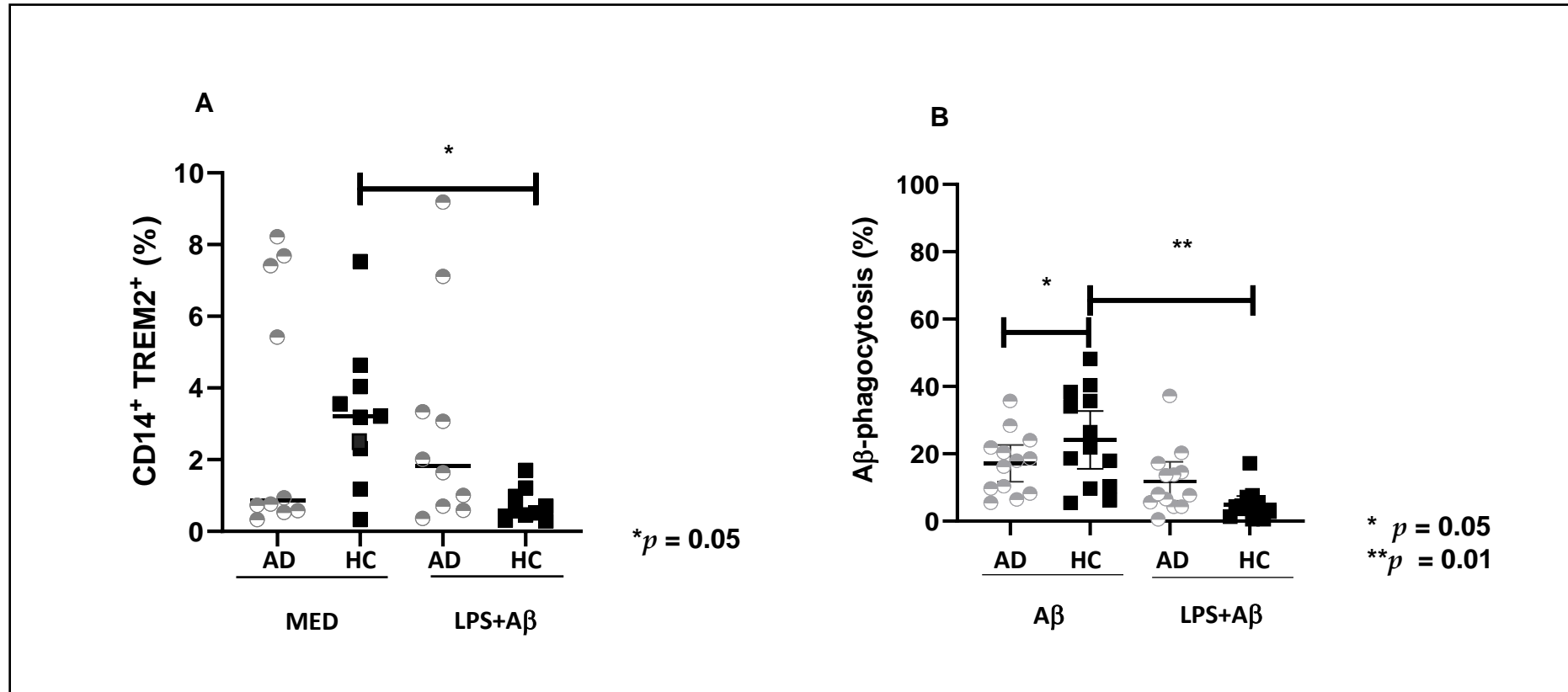
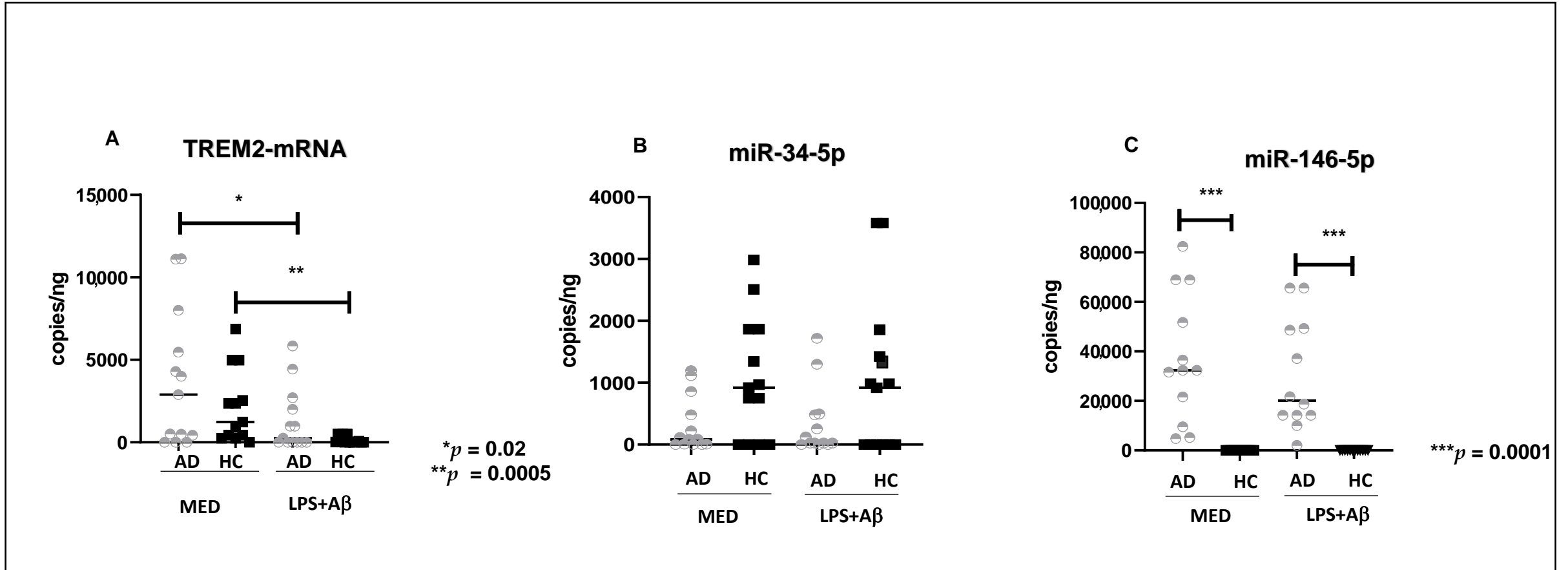


Figure S1



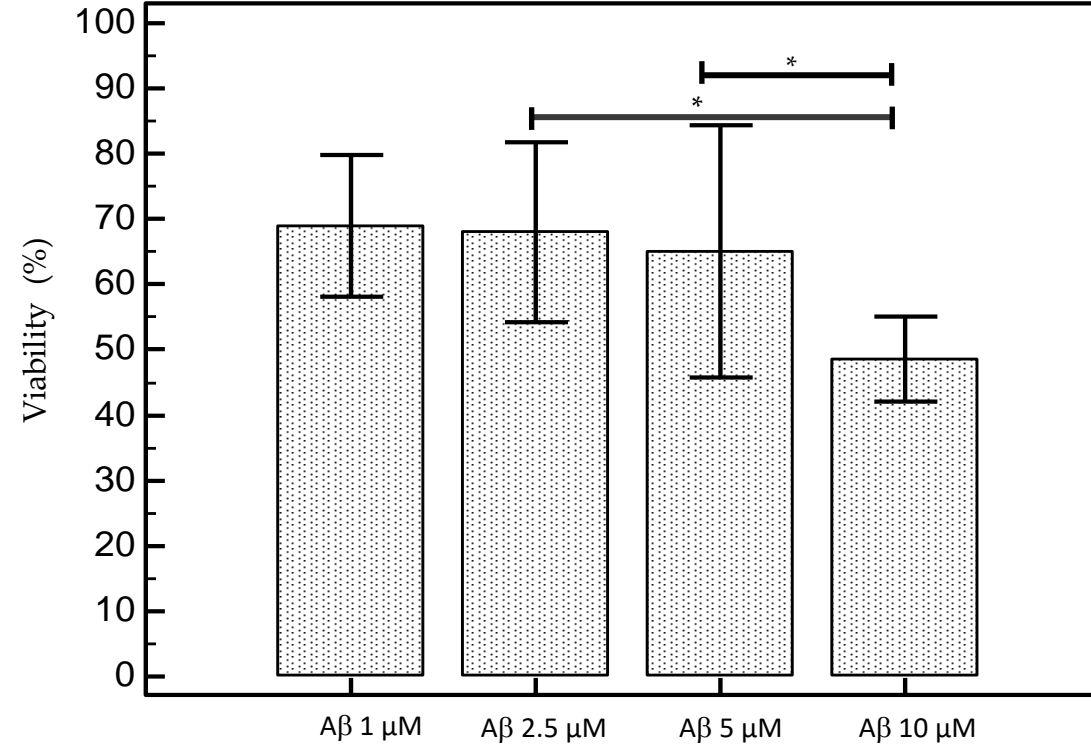
**Figure S1:** (A): TREM2-expressing CD14<sup>+</sup> monocytes in 10 Alzheimer's Disease patients (AD) and 10 healthy controls (HC); cells were cultured in medium alone (MED) or upon LPS and A $\beta$  stimulation. The Mann Whitney test was used to compare the percentage of TREM2-expressing CD14<sup>+</sup> monocyte in AD and HC, and Wilcoxon matched-pair test for comparison before and after LPS stimulation.  $p$  values of less than 0.05 were considered significant ( $*p = 0.05$ ). (B): A $\beta$ 42-FAM-phagocytosis by A $\beta$ - or A $\beta$ + LPS- stimulated monocyte of 13 Alzheimer's Disease patients (AD) and 12 healthy controls (HC). Results are expressed as the percentage of monocytes phagocytosing A $\beta$ 42-FAM. Analysis was performed by FlowSight. Mann Whitney test was used to compare the phagocytosis percentage in AD and HC and Wilcoxon matched-pair test for comparison before and after LPS stimulus. Horizontal lines represent median.  $p$  values of less than 0.05 were considered significant ( $*p = 0.05$ ), ( $**p = 0.01$ ).

Figure S2



**Figure S2:** (A): Expression of TREM2 mRNA in unstimulated (MED) or LPS + A $\beta_{42}$  stimulated- PBMC of 13 Alzheimer's Disease patients (AD) and 12 healthy controls (HC). (B): miR-34a-5p and (C): miR-146a-5p expression in unstimulated (MED) or LPS + A $\beta_{42}$  stimulated-PBMC from 12 Alzheimer's Disease patients (AD) and 12 healthy controls (HC). The Mann Whitney test was used to compare the mRNA or miRNA expression; the Wilcoxon matched-pair test was used to compare results obtained in different cultural conditions. For ddPCR analysis, the QuantaSoft software version 1.7.4.0917 (Bio-Rad, Hercules, CA, USA) was used to quantify mRNA and miRNAs copies. Horizontal lines represent median.  $p$  values of less than 0.05 were considered significant: \*  $p = 0.02$ ; \*\*  $p = 0.005$ ; \*\*\*  $p = 0.0001$ ).

**Figure S3**



**Figure S3:** Results of MTT (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide) assay of Amyloid-beta ( $A\beta$ ) on monocytes-derived to PBMC from Alzheimer's disease patients and controls enrolled in the study. For cell viability, cells were cultured in a 96-wells plate with serial  $A\beta$  concentrations (1 to 10uM)Viable cells with active metabolism convert MTT into a purple colore. Adsorbance was read at 570 nm using a plate reading spectrophotometer. Values are expressed as mean  $\pm$  standard deviation of the mean (SD);  $p$  values of less than 0.05 were considered significant (\*  $p = 0.002$ ).