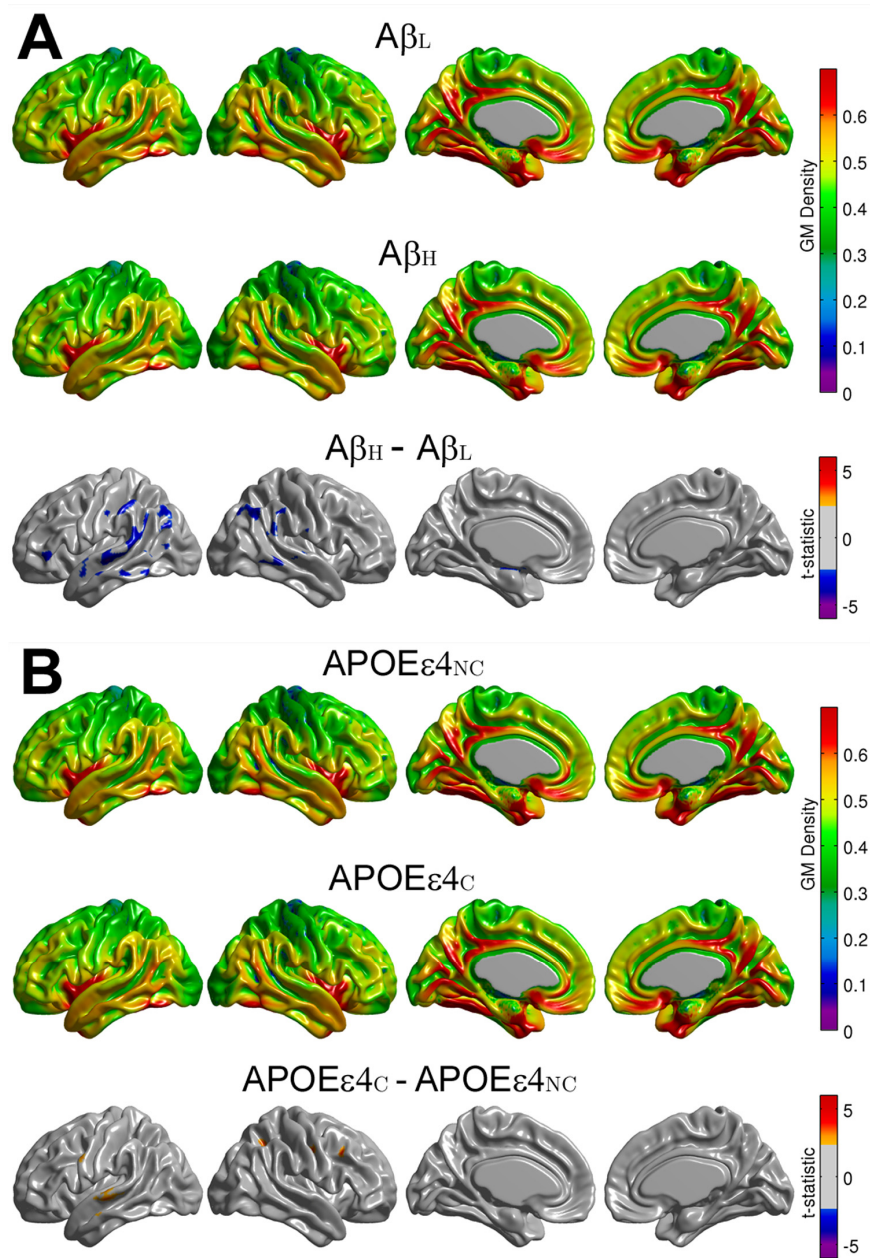
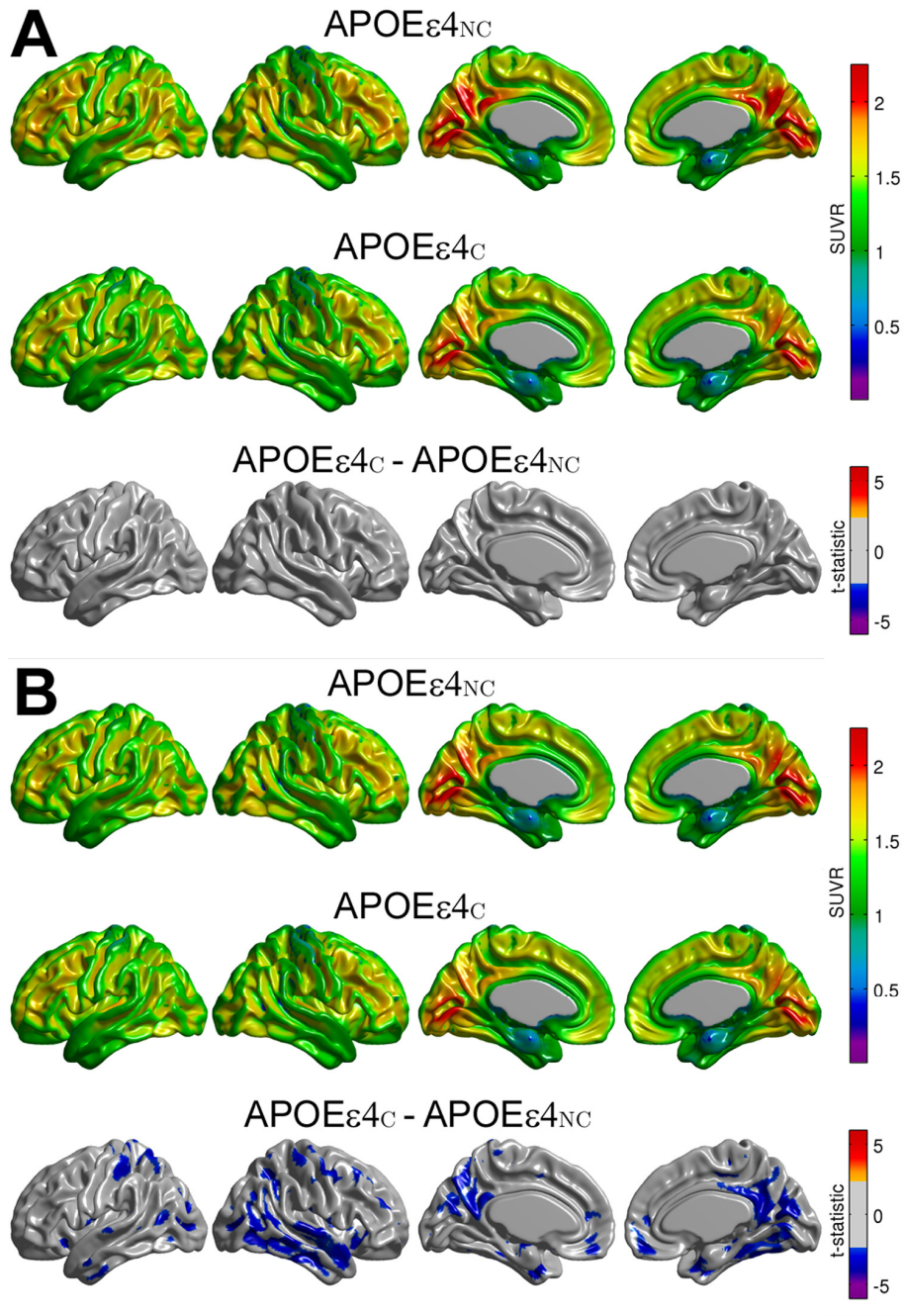


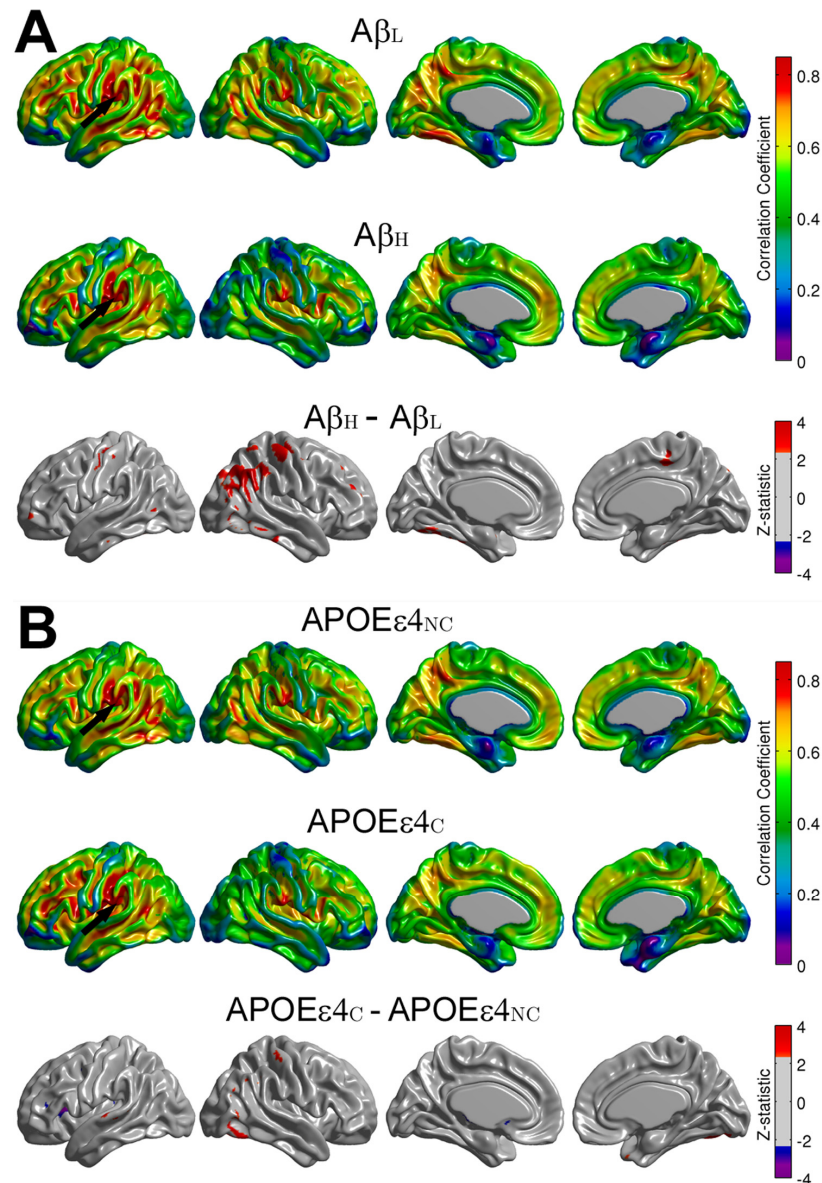
Supplementary Figures



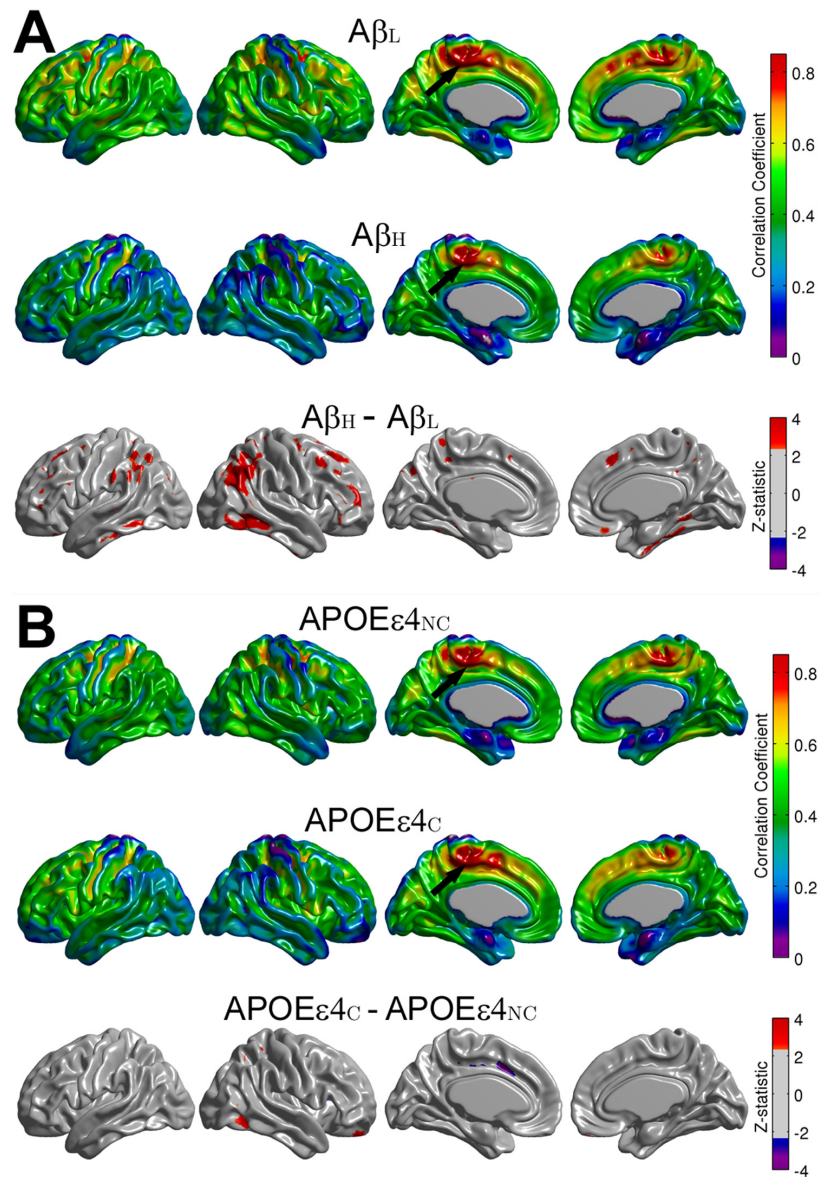
Supplementary Figure 1. Representative surface views of the GM density maps and thresholded ($\alpha = 0.05$) t-statistic maps corresponding to the main effects of amyloid status and APOE $\epsilon 4$ genotype on the gray matter density. The $A\beta_H$ group showed significantly reduced GM density in the lateral temporal and inferior parietal regions (A). The main effect of APOE $\epsilon 4$ genotype did not reveal marked group differences (B).



Supplementary Figure 2. Statistical comparison between the APOE ϵ ₄_{NC} and APOE ϵ ₄_C groups corresponding to A β _L (A) and A β _H (B) groups (*i.e.* ANOVA interaction terms). Note the absence of significant APOE ϵ -related differences in the A β _L group, while the APOE ϵ ₄_C group shows significant regional hypometabolism relative to the APOE ϵ ₄_{NC} group in the A β _H group interaction term.



Supplementary Figure 3. Seed-based correlation maps for the Left Supramarginal Gyrus. Maps are provided for the $A\beta_L$ group, $A\beta_H$ group, and thresholded Z-statistic for the $A\beta_L$ vs. $A\beta_H$ group differences (A). The arrows indicate the seed region. The $A\beta_H$ group showed reduced correlations relative to the $A\beta_L$ group, especially between the seed and the right lateral parietal lobe. Seed-based correlation maps for $APOE\epsilon_{4NC}$ group, $APOE\epsilon_{4C}$ group, and thresholded Z-statistic for the $APOE\epsilon_{4NC}$ vs. $APOE\epsilon_{4C}$ group differences are shown in (B). Only a few small clusters showing statistically significant differences are observable.



Supplementary Figure 4. Seed-based correlation maps for the Left Paracentral Lobule.

Maps are provided for the $A\beta_L$ group, $A\beta_H$ group, and thresholded Z-statistic for the $A\beta_L$ vs.

$A\beta_H$ group differences (A). The arrows indicate the seed region. The $A\beta_H$ group showed

reduced correlations relative to the A_L group, especially between the seed and the inferior

temporal gyrus and lateral parietal lobe. Maps for $APOE\epsilon_{4NC}$ group, $APOE\epsilon_{4C}$ group, and

thresholded Z-statistic of the $APOE\epsilon_{4NC}$ vs. $APOE\epsilon_{4C}$ group differences are provided in (B).

Only a few small clusters showing statistically significant differences between the $APOE\epsilon_{4NC}$ and $APOE\epsilon_{4C}$ groups.