Supplementary Figure 1: Modularity moderates the association between AD severity and cognition

DIAN mutation-carrier (A&B) and *ADNI Tau-PET sample - Aβ+* (C&D)
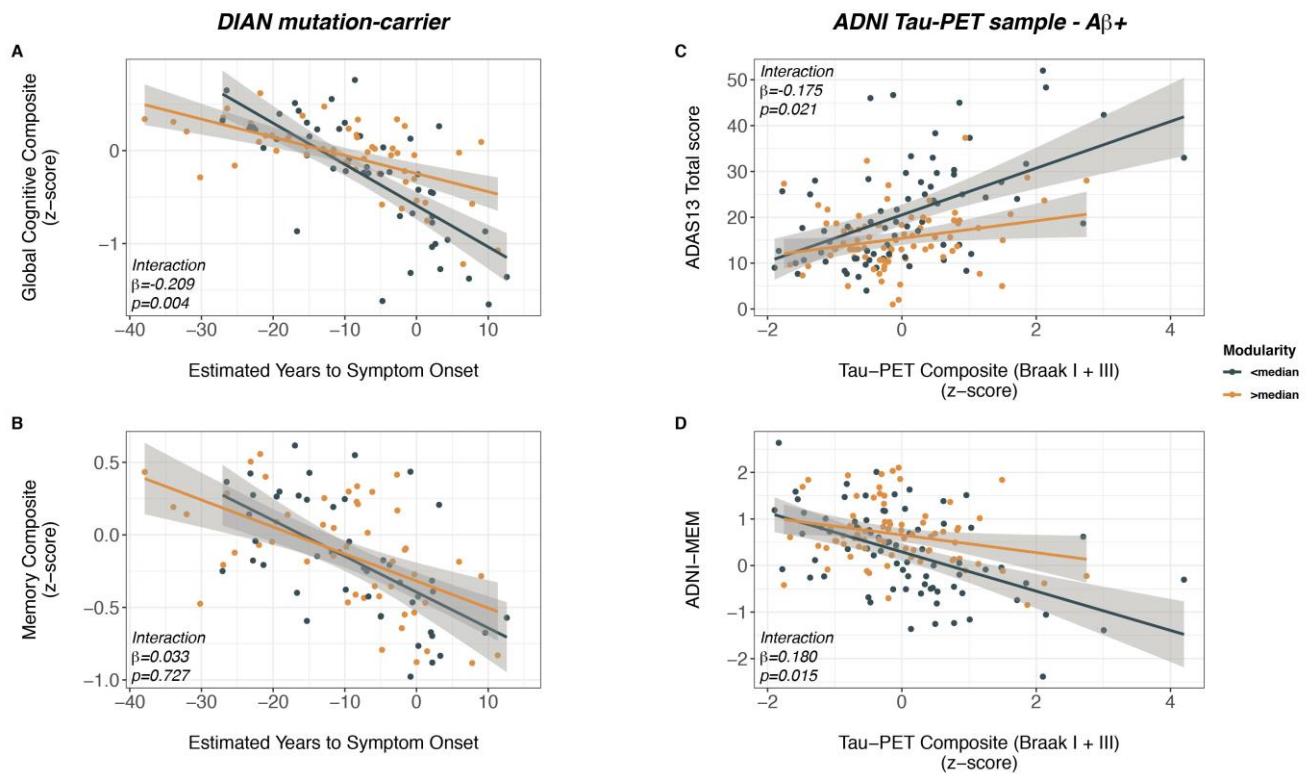
Interaction effect of modularity Q by disease progression markers on cognitive performance in autosomal dominant (A&B) and sporadic Alzheimer's disease (C&D). Note that interaction effects were determined using continuous values of system segregation, while median splits are for illustrational purposes only. Note that higher scores on the ADAS13 (panel C) indicates worse cognition, whereas higher scores on the composite measures (A,B, and D) indicate better cognition.

Supplementary Figure 2: System segregation vs. tau-PET in cognitively normal Aβ-
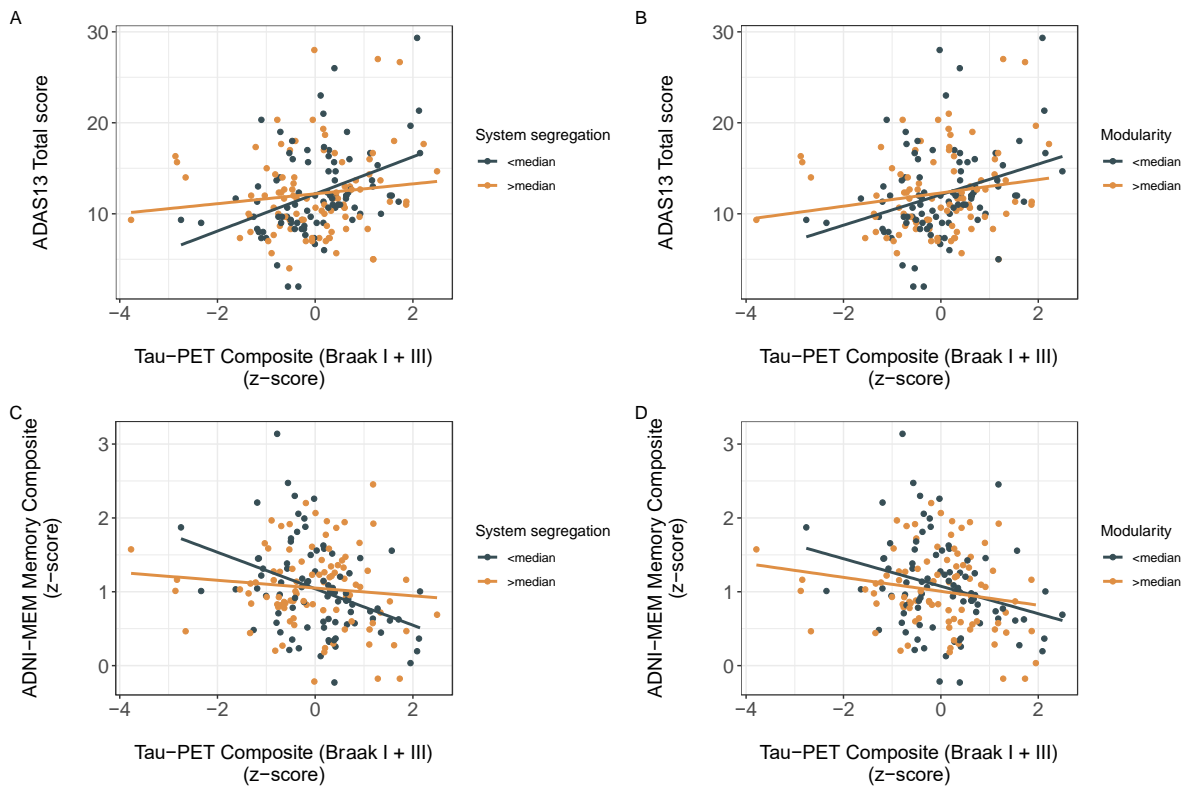
Interaction effect of system segregation (A&C) or modularity Q (B&D) by tau-PET on cognitive performance in cognitively normal Aβ- subjects of the ADNI sample. Note that interaction effects were determined using continuous values of system segregation, while median splits are for illustrational purposes only. Note that higher scores on the ADAS13 (panel C) indicates worse cognition, whereas higher scores on the composite measures (A,B, and D) indicate better cognition. All interaction effects were non-significant (p>0.05).