

Longitudinal Bidirectional Associations between Sleep and Alzheimer's Pathology in At-Risk Cognitively Unimpaired Older Adults

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Age = 66.82 ($\pm 5.5y$)
Sex = 71.85% female



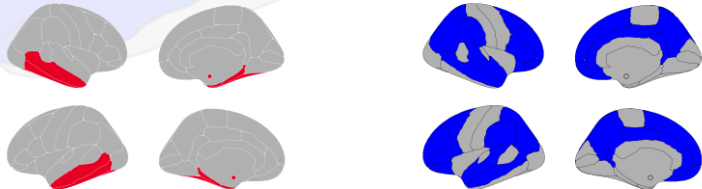
Subjective sleep (PSQI):
Longitudinal n=183 (follow-up= 1.03y $\pm 0.19y$)

Global Amyloid and medial temporal tau PET data collection:

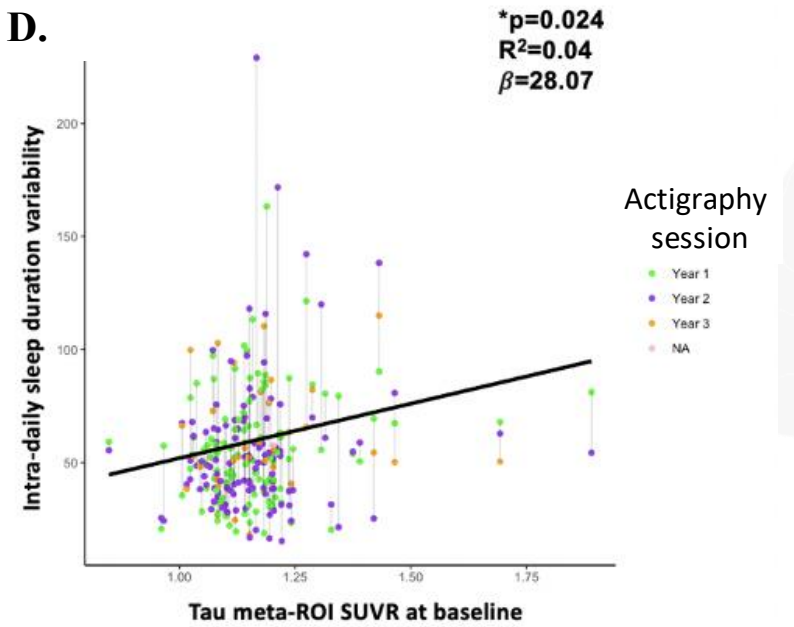
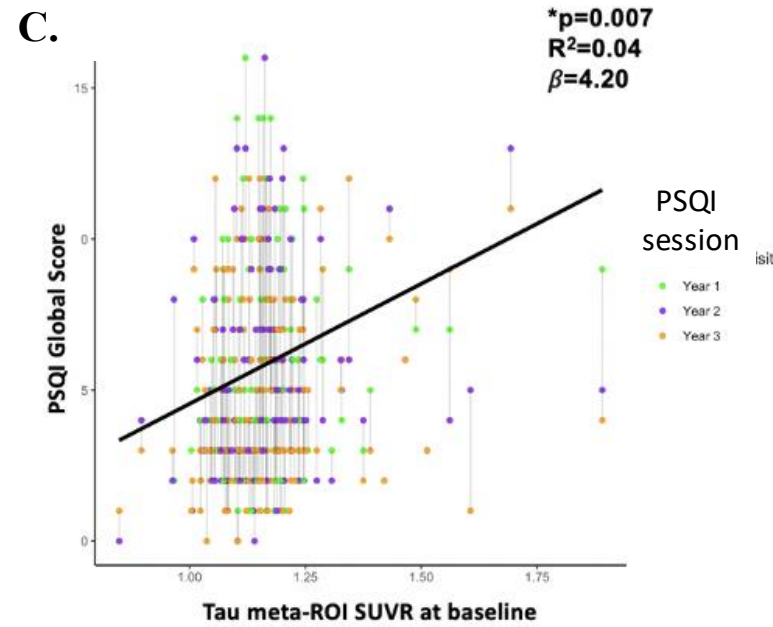
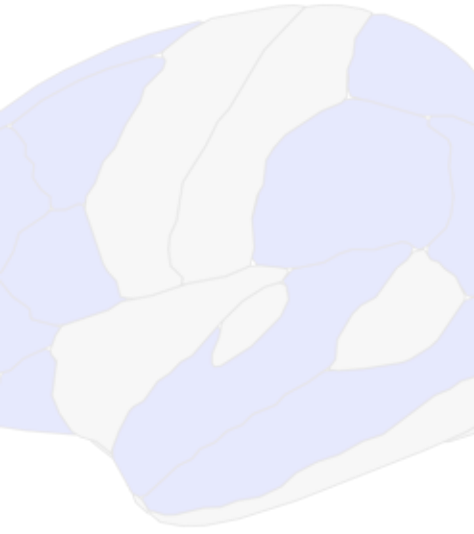
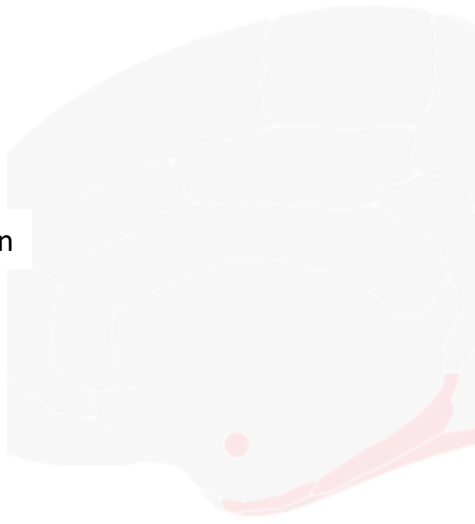
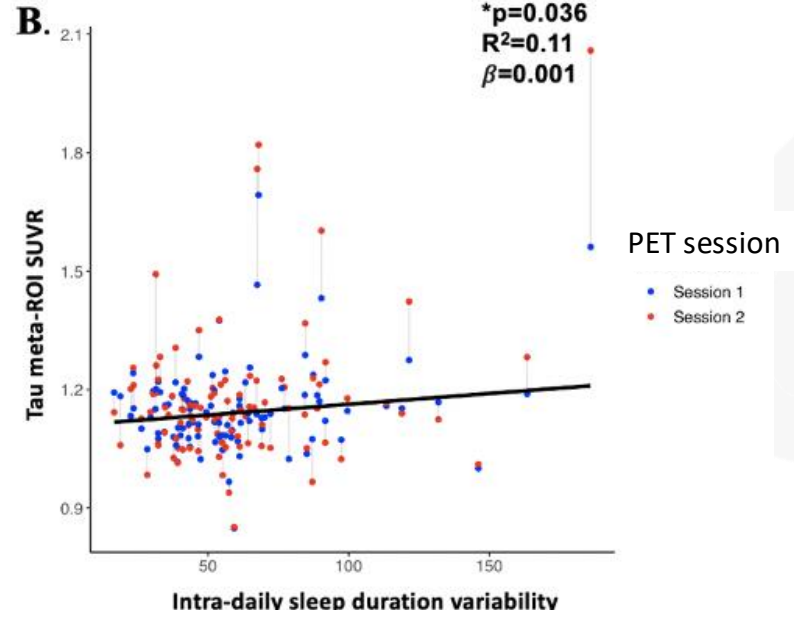
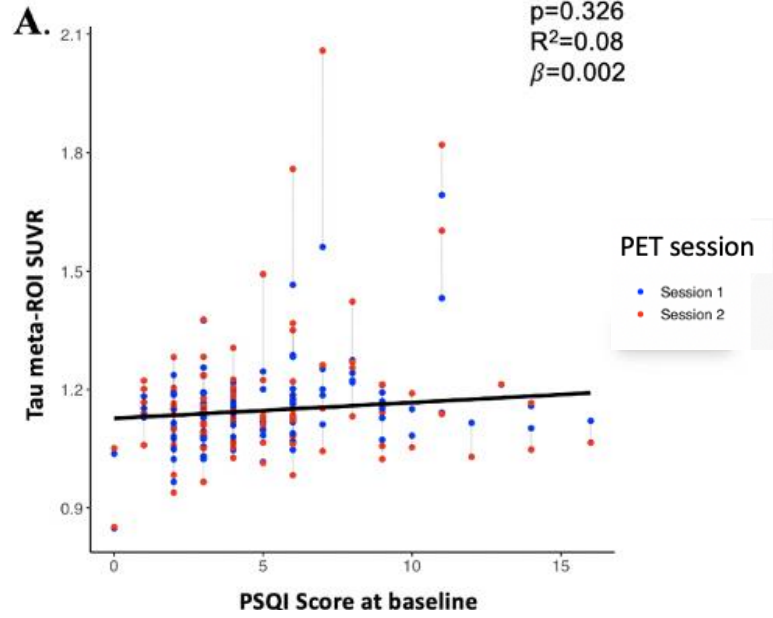
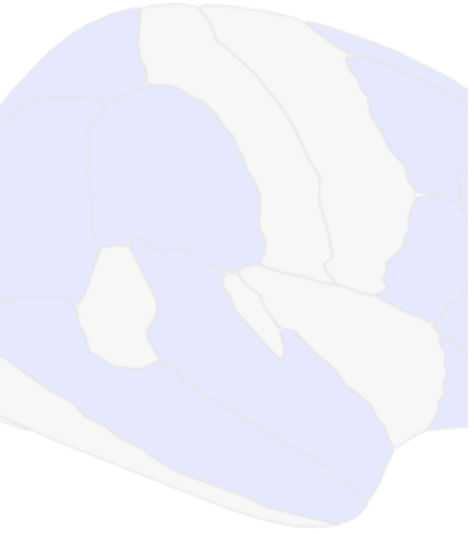
- 2 data points per participant (n=93)
- follow-up= 4.3y $\pm 0.48y$



Objective sleep (actigraphy):
Longitudinal n=109 (follow-up= 2.5y $\pm 1.24y$)



Results



Summary

Poor sleep quality is associated with **higher levels of tau burden** over a 4.5 years follow-up

Tau burden is associated **with faster worsening of sleep quality** during the same period.

Sleep impairments in older age could contribute to **tau pathology accumulation**, which could in turn **disrupt sleep further**.



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Acknowledgements

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Villeneuve Lab

Imagerie multimodale du vieillissement cérébral
Multimodal Imaging of the Aging Brain