

Tau PET imaging with ¹⁸F-PI2620 in aging and Alzheimer's disease

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OBJECTIVE

Measurement of the spatial distribution of Tau pathology is critical for early diagnosis and disease monitoring. We sought to investigate a novel Tau PET ligand, ¹⁸F-PI2620, in aging and throughout the spectrum of Alzheimer's disease (AD), and in other neurodegenerative disorders.

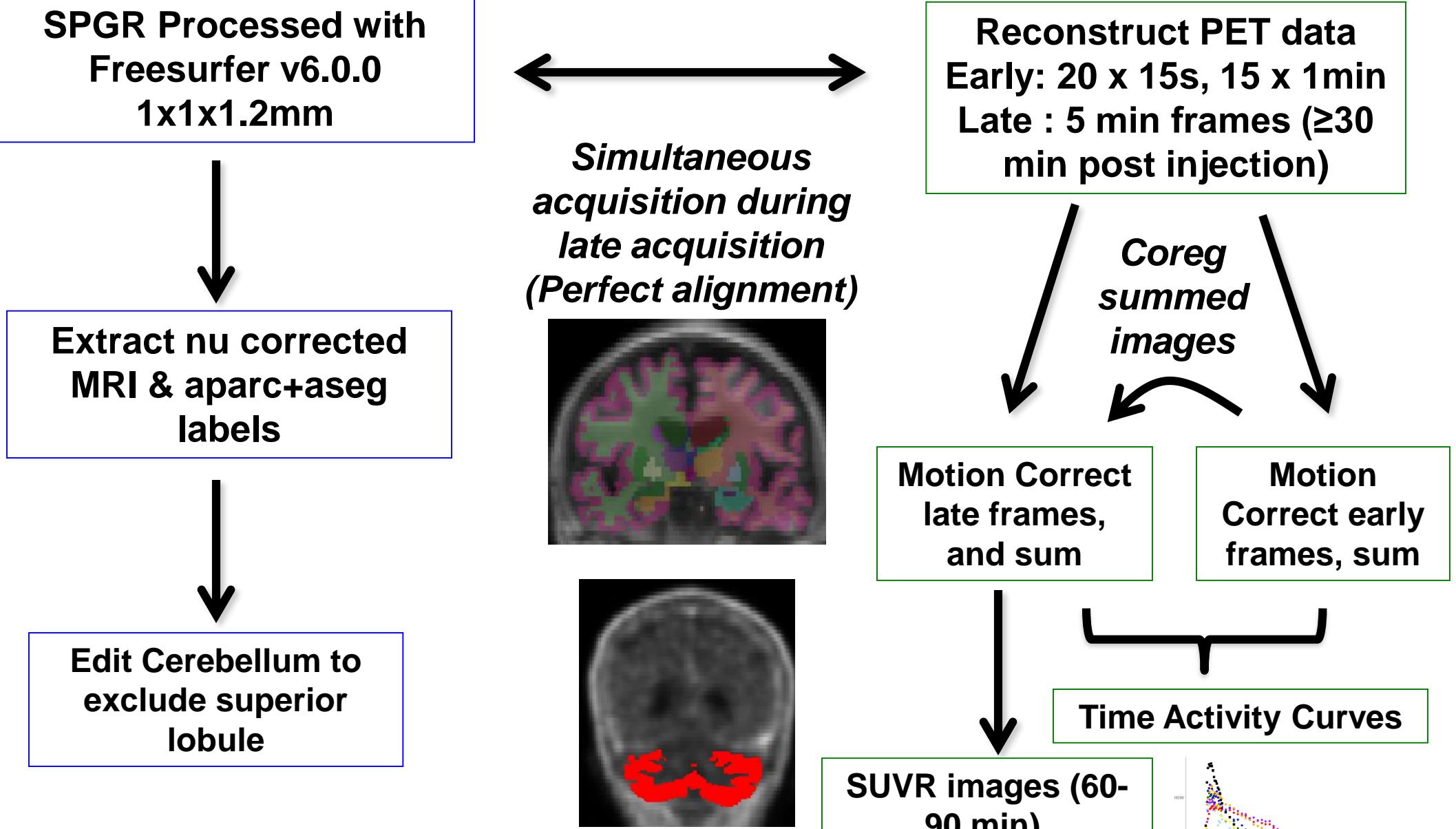
PARTICIPANTS

| | Normal | MCI | AD | DLB | PSP |
|---------|---------------------|---------------------|------------------------|-----|-----|
| N | 14 | 3 | 4 | 1 | 1 |
| Aβ-/Aβ+ | 6/4 | 0/3 | 0/4 | 1/0 | 1/0 |
| Age | 72 ± 7 (61 – 84) | 72 ± 5 (68 – 77) | 61 ± 6.05 (57 - 70) | 61 | 71 |
| Sex (M) | 7 | 1 | 1 | 1 | 1 |

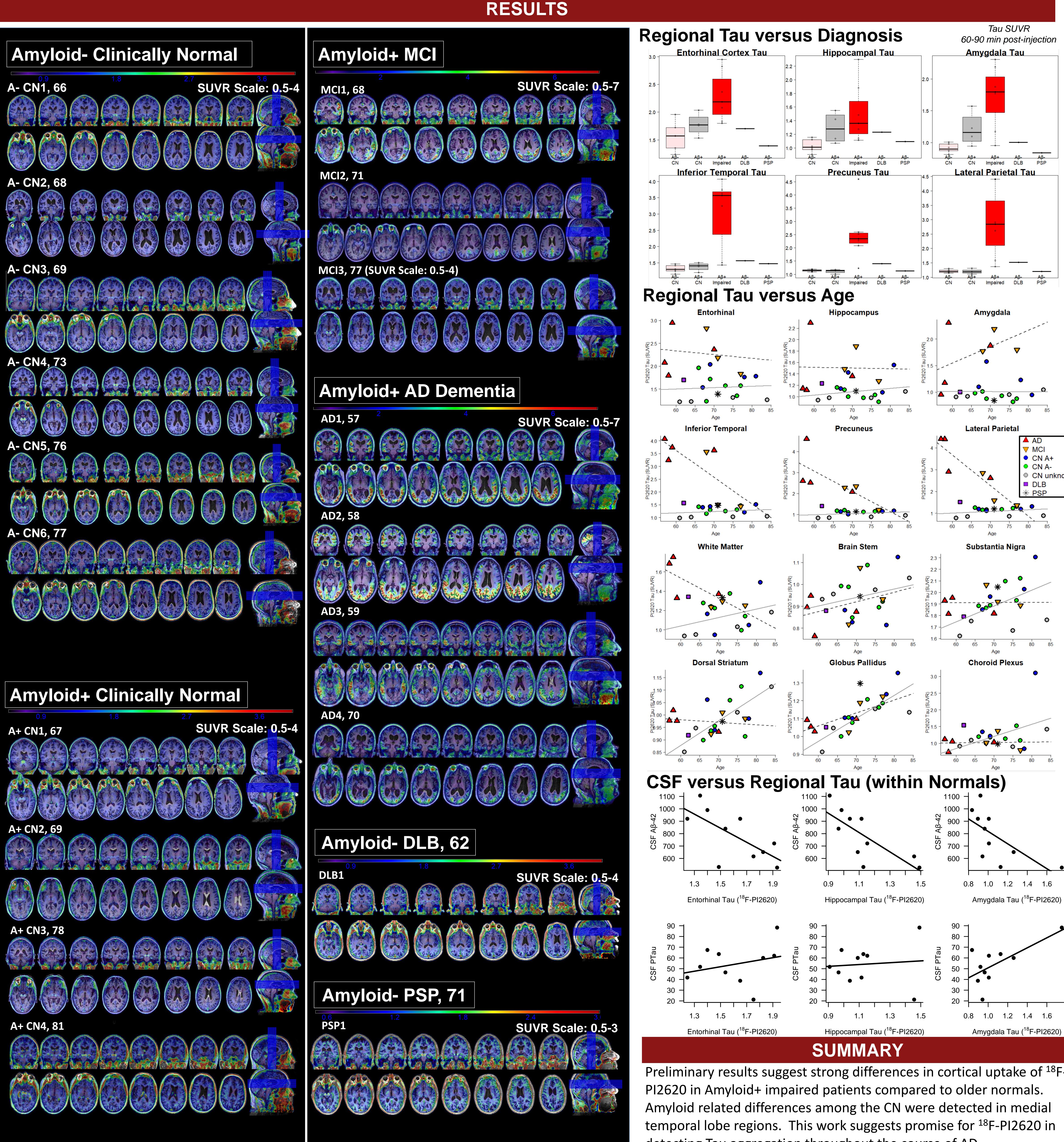
METHODS

GE Signa PET-3T MRI system, 5-10mCi injection of ¹⁸F-PI2620

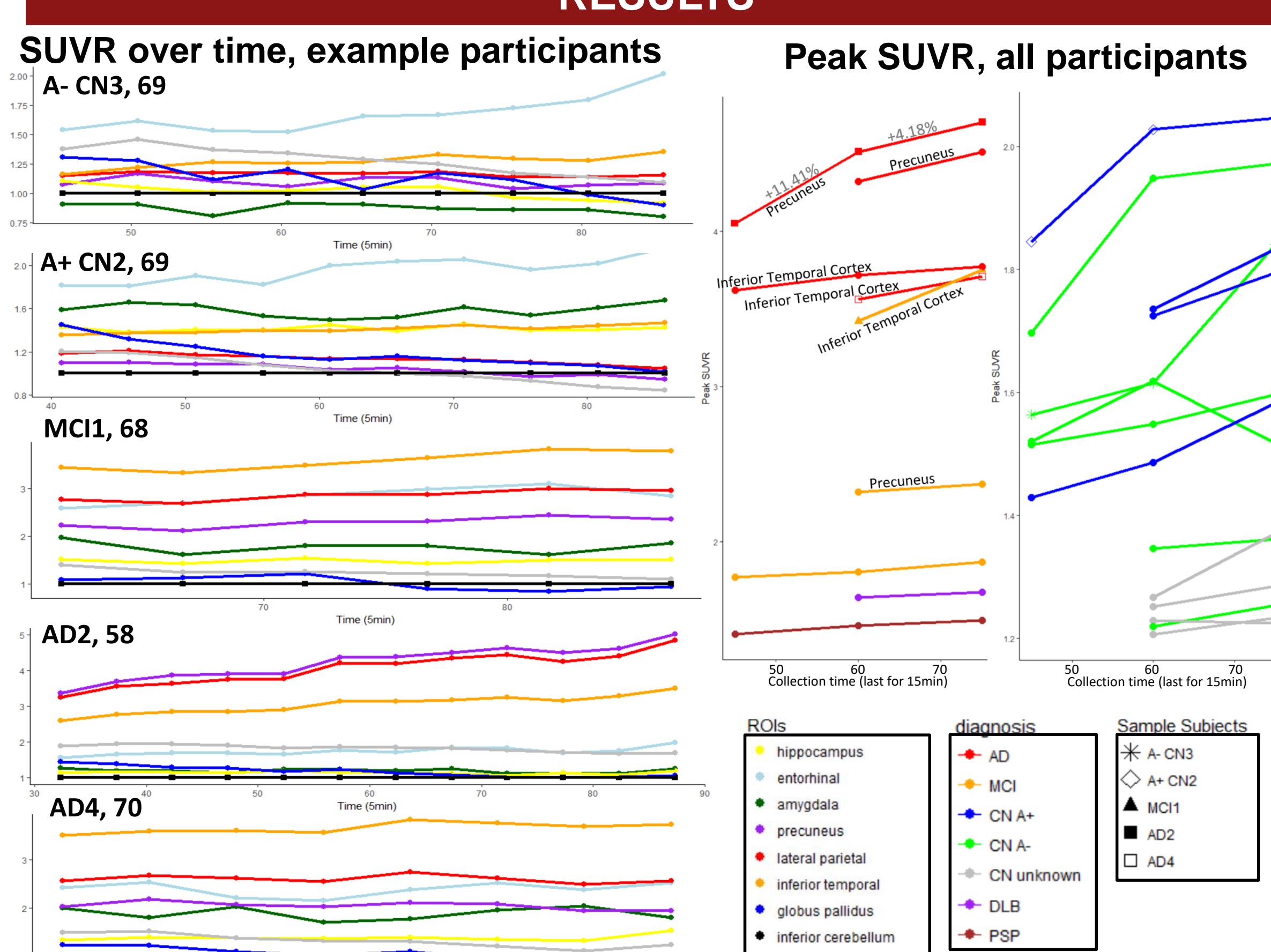
MRI Stream



PET Stream



RESULTS



SUMMARY

Preliminary results suggest strong differences in cortical uptake of ¹⁸F-PI2620 in Amyloid+ impaired patients compared to older normals. Amyloid related differences among the CN were detected in medial temporal lobe regions. This work suggests promise for ¹⁸F-PI2620 in detecting Tau aggregation throughout the course of AD.