

Supplementary Information for “Label-free x-ray estimation of brain amyloid burden”

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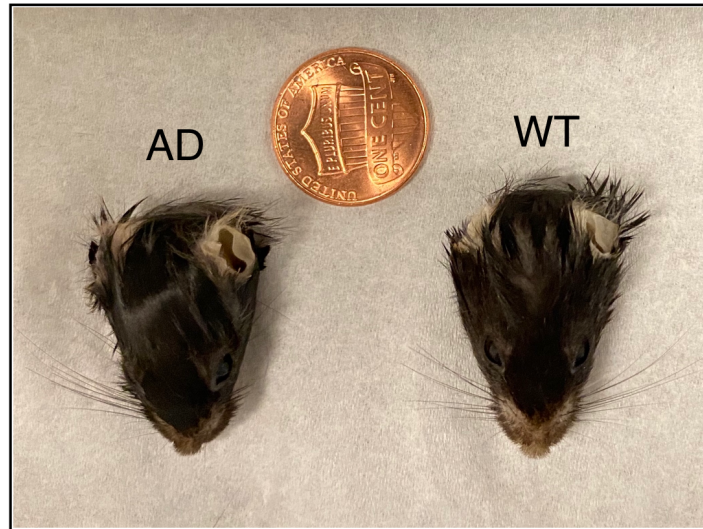
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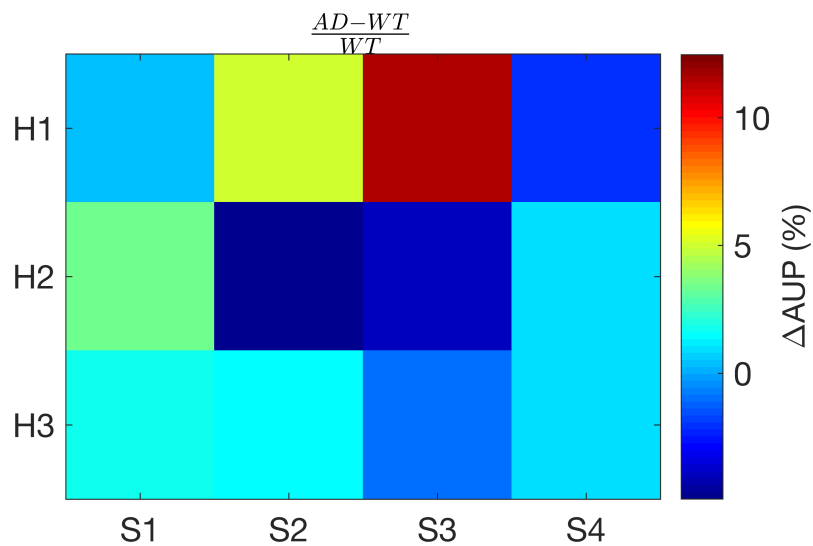
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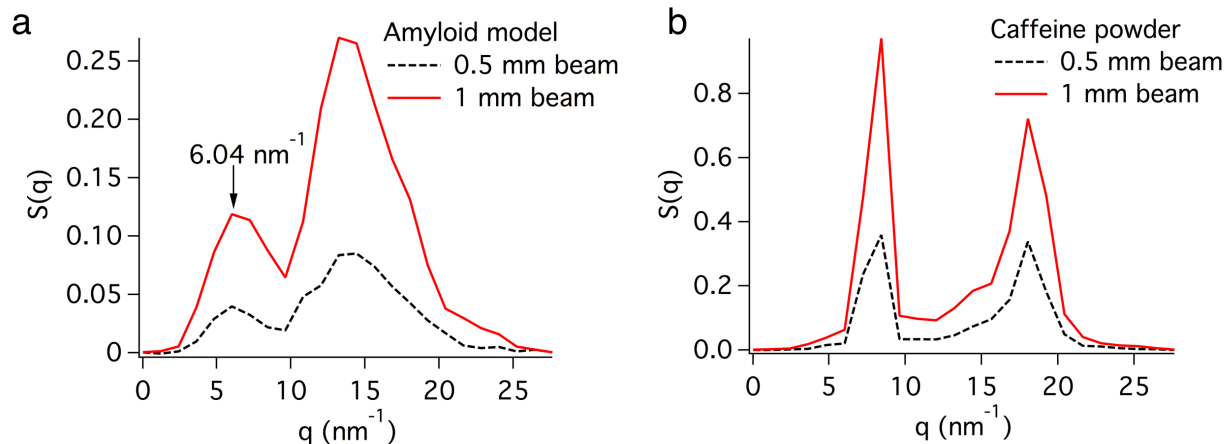
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Supplementary Figure 1. AD and WT mouse head samples used in the sSAXS study.



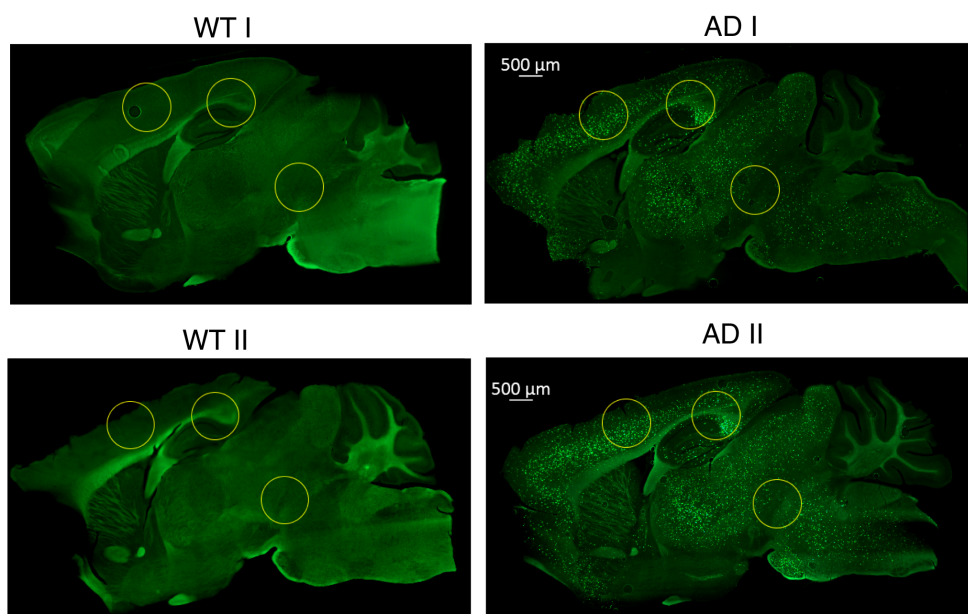
Supplementary Figure 2. Initial AD and WT mouse head scanning results with a 0.5 mm polychromatic x-ray beam. Each mouse head was scanned between eye and ear (S1-S4, sagittal plane, $\Delta x = 2$ mm) at different heights (H1-H3, $\Delta z = 1$ mm).



Supplementary Figure 3. $S(q)$ of amyloid model (a) and caffeine (b) using 1 mm vs. 0.5 mm x-ray beam spot size.

	H1S2 (isocortex [MO + SS])		H1S3 (isocortex + hippocampus)		H3S4 (midbrain + pons)	
	Δ AUP	Amyloid load (%)	Δ AUP	Amyloid load (%)	Δ AUP	Amyloid load (%)
WT	0.00 ± 0.02	0.5 ± 0.3	0.00 ± 0.02	0.9 ± 0.4	0.00 ± 0.03	0.4 ± 0.3
AD I	0.04 ± 0.03	8.4 ± 2.0	0.15 ± 0.03	11.4 ± 2.4	-0.02 ± -0.05	1.4 ± 1.5
AD II	0.14 ± 0.03	11.1 ± 2.3	0.14 ± 0.04	12.5 ± 1.4	0.04 ± 0.05	2.7 ± 2.9

Supplementary Table 1. Tabulated data of Δ AUP (fraction) and amyloid load (%).



Supplementary Figure 4. Representative histology images of each mouse stained with Thioflavin S. Yellow circle shows ROI.