

Supplementary Information

Association Between Ageing, Brain Chemistry And White Volume Revealed With Complementary MRI And FTIR Brain Imaging

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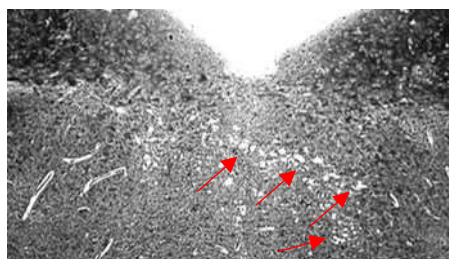
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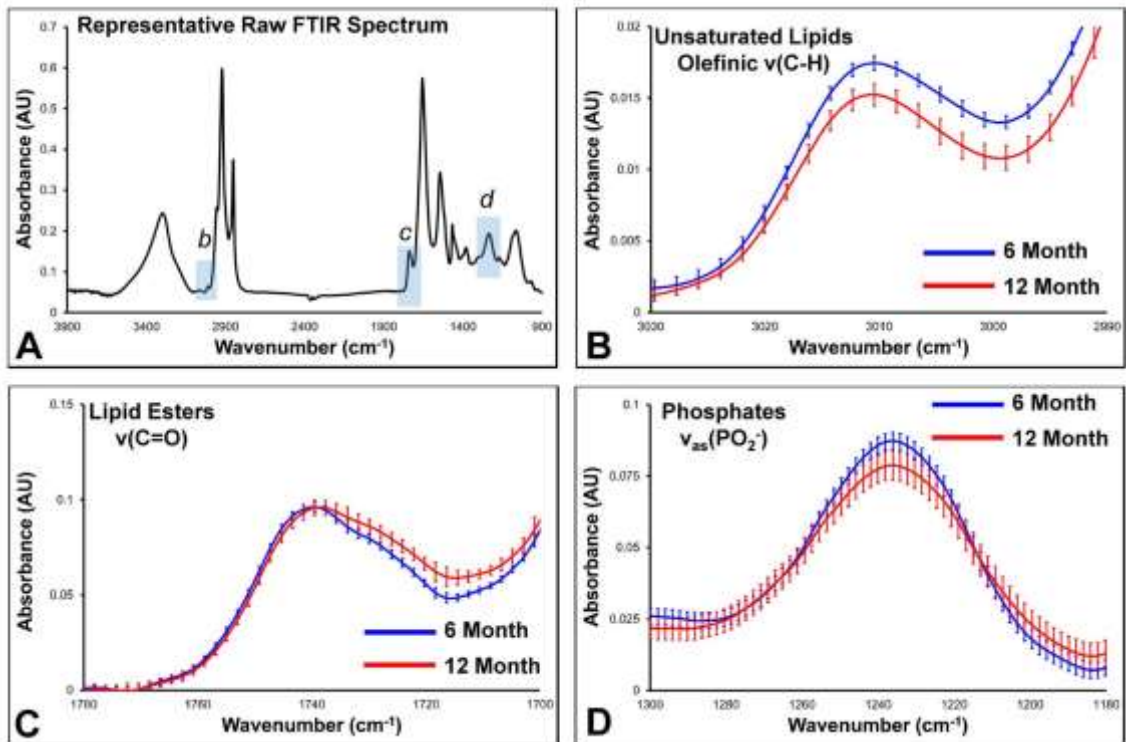
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SI Figure 1: Representative histology (cresyl violet) showing the typical pattern of vacuolisation (red arrows) associated with spongiform pathology, which has been reported in SAMP8 mice. Image captured at 40x magnification. Image reproduce with permission from John Wiley and Sons, from Figure 3 in the following reference.

Akiguchi, Ichiro, Mercè Pallàs, Herbert Budka, Haruhiko Akiyama, Masaki Ueno, Jingxian Han, Hideo Yagi et al. "SAMP8 mice as a neuropathological model of accelerated brain aging and dementia: Toshio Takeda's legacy and future directions. *Neuropathology* 37, no. 4 (2017): 293-305.



SI Figure 2: Average experimental group FTIR spectra of the corpus callosum of 6 month and 12-month-old SAMP8 mice. Entire spectral range (A). Panels B, C, D show enlarged spectral regions of interest, indicated by blue shaded regions in A, marked *b*, *c*, *d*. Spectra indicate decreased levels of unsaturated lipids (B), no decrease in quantity of lipid esters (C), and decreased levels of phosphates (D), when comparing 12 month to 6-month-old mice. Error bars indicate standard deviation.