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Supplementary Data

Early Increases in Soluble Amyloid-β Levels Coincide with Cholinergic Degeneration in 3xTg-AD Mice

M. Teresa Girão da Cruz[a,1], Jessica Jordão[a,b], Kevin A. DaSilva[a,b,c], Carlos A. Ayala-Grosso[a,2], Athéna Ypsilanti[a,b,3], Ying-Qi Weng[a], Frank M. LaFerla[d], JoAnne McLaurin[b,c] and Isabelle Aubert[a,b,*]
[a]*Sunnybrook Research Institute, Sunnybrook Health Sciences Centre, Biological Sciences, Brain Sciences, Toronto, ON, Canada*
[b]*Faculty of Medicine, Department of Laboratory Medicine and Pathobiology, University of Toronto, ON, Canada*
[c]*Centre for Research in Neurodegenerative Diseases, University of Toronto, ON, Canada*
[d]*Department of Neurobiology and Behavior, University of California Irvine, CA, USA*

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[1]Present address: Center for Neuroscience and Cell Biology, University of Coimbra, Coimbra, Portugal.

[2]Present address: Laboratory of Cellular and Molecular Pathology, Center for Experimental Medicine, Instituto Venezolano de Investigaciones Científicas, IVIC, Venezuela.

[3]Present address: Institut de la Vision, Département Biologie du Développement, Institut National de la Santé et de la Recherche Médicale (INSERM), UMR S968, Université Pierre et Marie Curie (UPMC) Paris IV, UMR S968, Centre National de la Recherche Scientifique (CNRS) UMR 7210, F-75012 Paris, France.

*Correspondence to: Isabelle Aubert, Sunnybrook Research Institute, Sunnybrook Health Sciences Centre, Biological Sciences, Brain Sciences, 2075 Bayview Ave, Toronto, ON M4N 3M5, Canada. E-mail: isabelle.aubert@sri.utoronto.ca.

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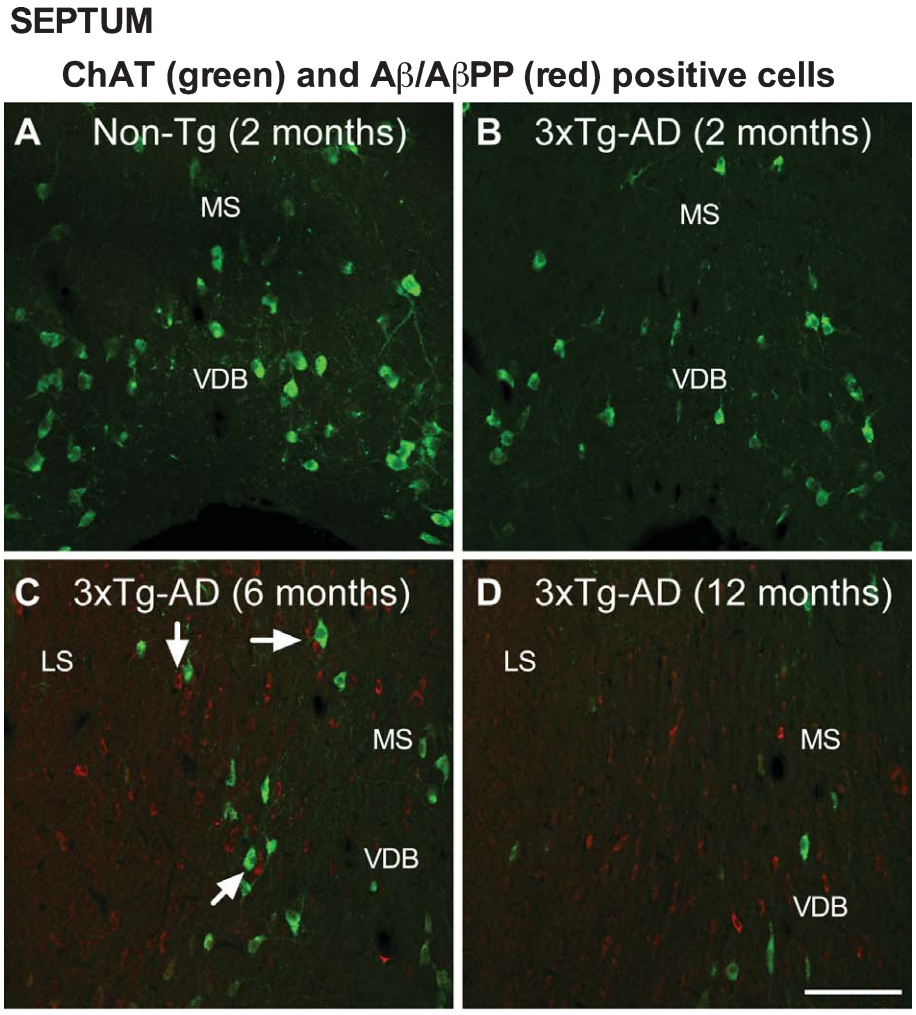

Supplementary Figure 1.

Supplementary Figure 1. A–D) Immunohistochemistry at the level of the medial septum/vertical limb of the diagonal band of Broca (MS/VDB) and lateral septum (LS) using antibodies against choline acetyltransferase (ChAT, AB144P, Millipore, 1 : 100, green) and amyloid-β peptides/amyloid-β protein precursor (Aβ/AβPP, 6E10, Sigma, 1 : 1000, red) in septum of non-Tg mice (A, 2 months) and 3xTg-AD mice (B–D; 2, 6 and 12 months, respectively). We observed qualitative reduction in the size and number of ChAT-positive neurons in 3xTg-AD compared to non-Tg mice, and between 2, 6 and 12 months of age (A–D). Aβ/AβPP was not detected in 2 month-old non-Tg (A) and 3xTg-AD (B) mice. Cells strongly expressing Aβ/AβPP were detected in proximity to ChAT-positive cells at 6 (C, arrows) and 12 (D) months. E–H, Immunohistochemistry of ChAT-positive fibers at the level of the hippocampal formation in 12 month-old non-Tg (E, F) and 3xTg-AD (G, H) mice. ChAT-positive staining appears stronger in the hippocampus of non-Tg (E, F) compared 3xTg-AD (G, H) mice. The boxed areas at the tip of the dentate gyrus in E and G are represented at high-power in F and H, respectively. Scale bars: A–D = 100 μm; E, G: 200 μm; F, H: 25 μm.