**Provide a descriptive study name**: The UCI\_Abca7\*V1599M Aduci

**Provide a study name abbreviation**: UCI\_ABCA7

This study provides bulk RNA-seq, immunohistochemistry and biochemistry data of *Abca7*<em1Aduci> homozygous (Jax stock number: 035316), 5xFAD hemizygous (Jax stock number: 034848), Abca7<em1Aduci> homozygous; 5xFAD hemizygous, and C57BL6/J (Jax stock number: 000664).Abca7<em1Aduci> is a mutant of the ATP-binding cassette, sub-family A (ABC1), member 7 (Abca7) gene carrying the V1613M mutation that corresponds to the human V1599M SNP (rs117187003) associated with increased risk of sporadic Alzheimer's disease. For clarification purpose, Abca7<em1Aduci> is presented as Abca7-V1559M or Abca7V1559M under this study.

Abca7-V1599M allele was introduced on to 5xFAD hemizygous by breeding. Cohorts of Abca7-V1599M homozygous, Abca7-V1599M homozygous; 5xFAD hemizygous, 5xFAD hemizygous, and wildtype (C57BL6/J) were generated by in vitro fertilization or breeding in the Transgenic Mouse Facility at UCI and maintained in a 12/12-hour light/dark cycle. To minimize gene expression variation between mice, all mice in experimental cohorts were bred in the same mouse room and were aged together (to the extent possible). Female and male littermate mice aged 4 and 12 months old were used in this study.