

**Figure S2.** Changes in the hallmarks of AD in five animal models and wild-type (WT) mice at 2-, 4-, 8- and 18-month-old from the Mouseac database.

(a) Changes in relative densities of  $A\beta$  plaque or tau neurofibrillary tangle (n = 4 for each group). The data are presented as the mean  $\pm$  standard error of the mean (mean  $\pm$  sem). Colours indicate different models; lines are fitted using a polynomial algorithm.

- (b) Changes in  $\log_2$  normalized expression levels of synaptophysin (n = 4 for each group). The data are presented as the mean  $\pm$  standard error of the mean (mean  $\pm$  sem). Colours indicate different models; lines are fitted using a polynomial algorithm.
- (c-d) Changes in  $\log_2$  normalized expression levels of CD86 and ARG1, representing changes in M1 and M2 cell counts (n = 4 for each group). The data are presented as the mean  $\pm$  standard error of the mean (mean  $\pm$  sem). Colours indicate different models; lines are fitted using a polynomial algorithm.
- (e-f) Changes in  $\log_2$  normalized expression levels of TIPM, CCL3, GATA-3 and MIF, representing changes in Th1 and Th2 counts (n = 4 for each group). The data are presented as the mean  $\pm$  standard error of the mean (mean  $\pm$  sem). Colours indicate different models; lines are fitted using a polynomial algorithm.