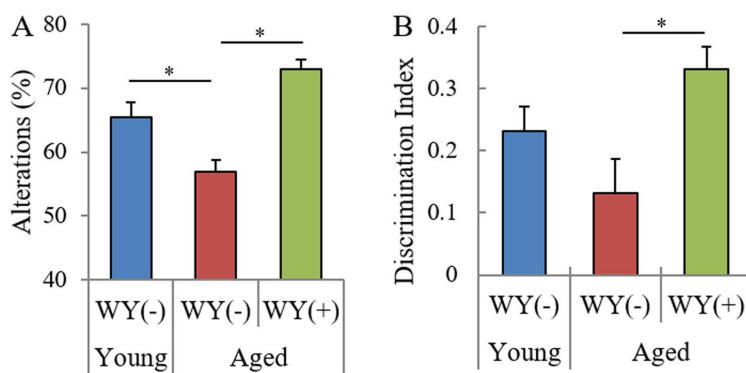
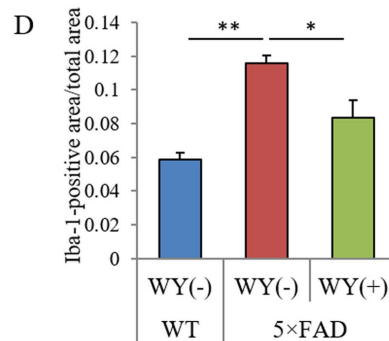
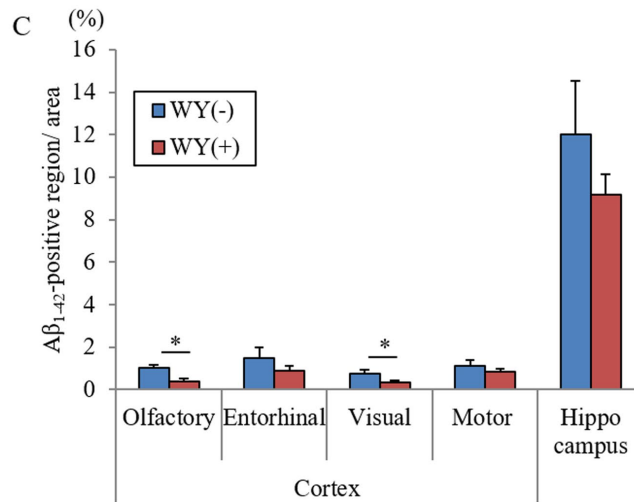
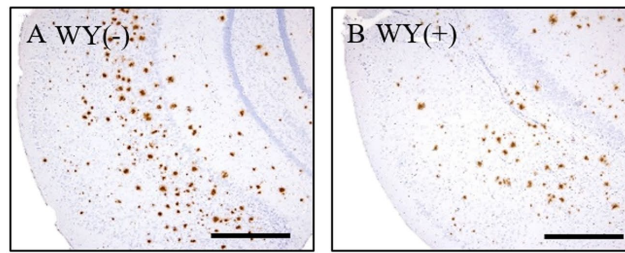


## SUPPLEMENTARY MATERIAL



**Supplementary Figure S1. Effects of short-term administration of the WY peptide on memory impairment in aged mice.**

For 14 days, 23- and 84-week-old male C57Bl/6J male mice were administered 0 or 10 mg/kg WY peptide. (A, B) Spontaneous alterations in Y-maze and discrimination index in NORT, respectively. Data are the means  $\pm$  SEM of 23-week-old mice (n = 10), 84-week-old mice (10) given 0 mg/kg WY peptide, and 84-week-old mice (n = 9) given 10 mg/kg WY peptide.



**Supplementary Figure S2. Effects of WY peptide on Aβ deposition in 5×FAD mice.** Percent positive area for Aβ<sub>1-42</sub> in the brain of the transgenic control mice and transgenic mice fed with a diet containing WY peptide. (A, B) The representative images of immunohistochemistry for Aβ<sub>1-42</sub> in transgenic mice with or without 0.05% WY peptide, respectively. (C) Semiquantification for Aβ<sub>1-42</sub> detected immunohistochemically in each brain region. (D) Semiquantification for Iba-1 detected immunohistochemically in olfactory cortex. Data represent the means ± SEM of 7 mice per group. *p*-values shown in the graph were calculated by performing Student *t*-test. \**p* < 0.05.