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Supplementary Data

# Tetrahydrohyperforin Increases Adult Hippocampal Neurogenesis in Wild-Type and APPswe/PS1ΔE9 Mice

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Supplementary Table 1
Spatial memory retention in the Morris water maze task.

| | Target quadrant preference (s) | Crossings | Latency(s) | Swimming distance (cm)† |
|---|---|---|---|---|
| **Probe 1** | | | | |
| Control | 38.92 ± 4.42 | 7.00 ± 1.05 | 5.52 ± 0.92 | 1,125 ± 39 |
| 4 mg/kg | 44.86 ± 2.73 | 7.25 ± 0.75 | 6.23 ± 1.32 | 1,239 ± 86 |
| 6 mg/kg | 48.85 ± 2.98 | 9.67 ± 1.09* | 7.32 ± 1.69 | 1,171 ± 68 |
| **Probe 2** | | | | |
| Control | 29.60 ± 1.89 | 4.20 ± 0.66 | 13.24 ± 3.09 | 1,070 ± 74 |
| 4 mg/kg | 32.73 ± 6.94 | 5.50 ± 0.87 | 10.25 ± 3.46 | 1,184 ± 87 |
| 6 mg/kg | 54.23 ± 4.25*** | 8.50 ± 0.85** | 8.95 ± 3.15 | 1,071 ± 81 |

†Total swim distance in 60 s probe trials. No differences were observed. Values represent mean ± S.E ($n \geq 4$). One way ANOVA or Mann–Whitney rank sum test. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

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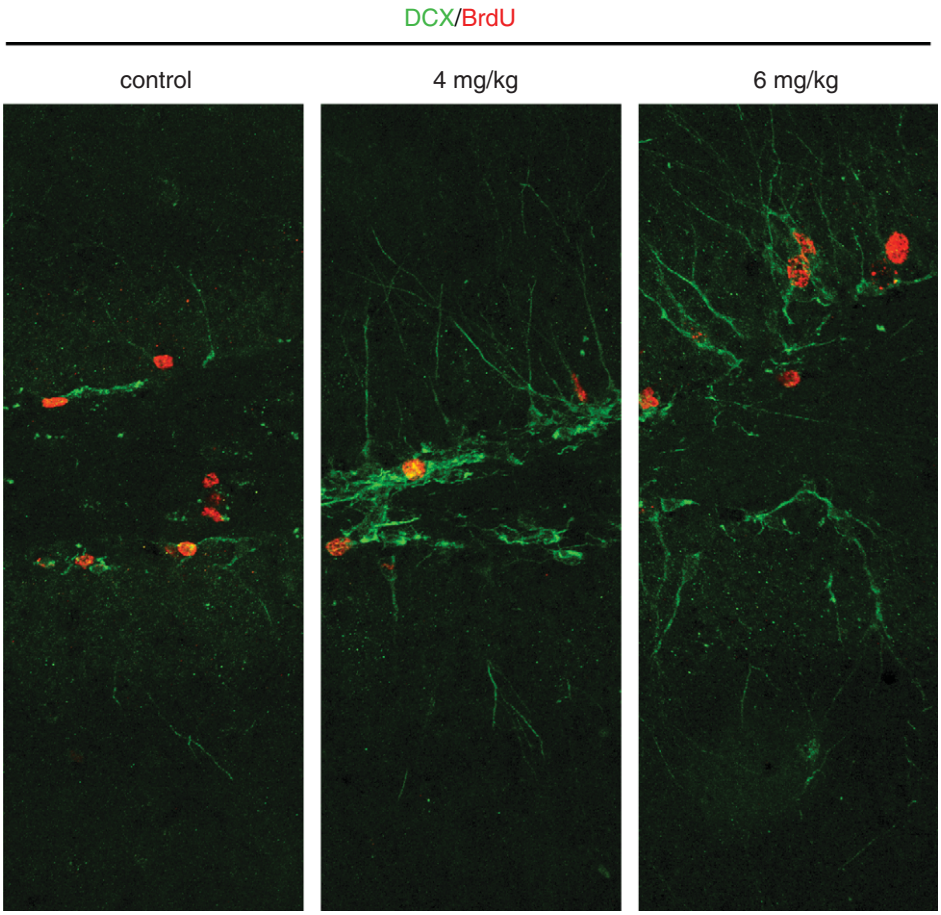
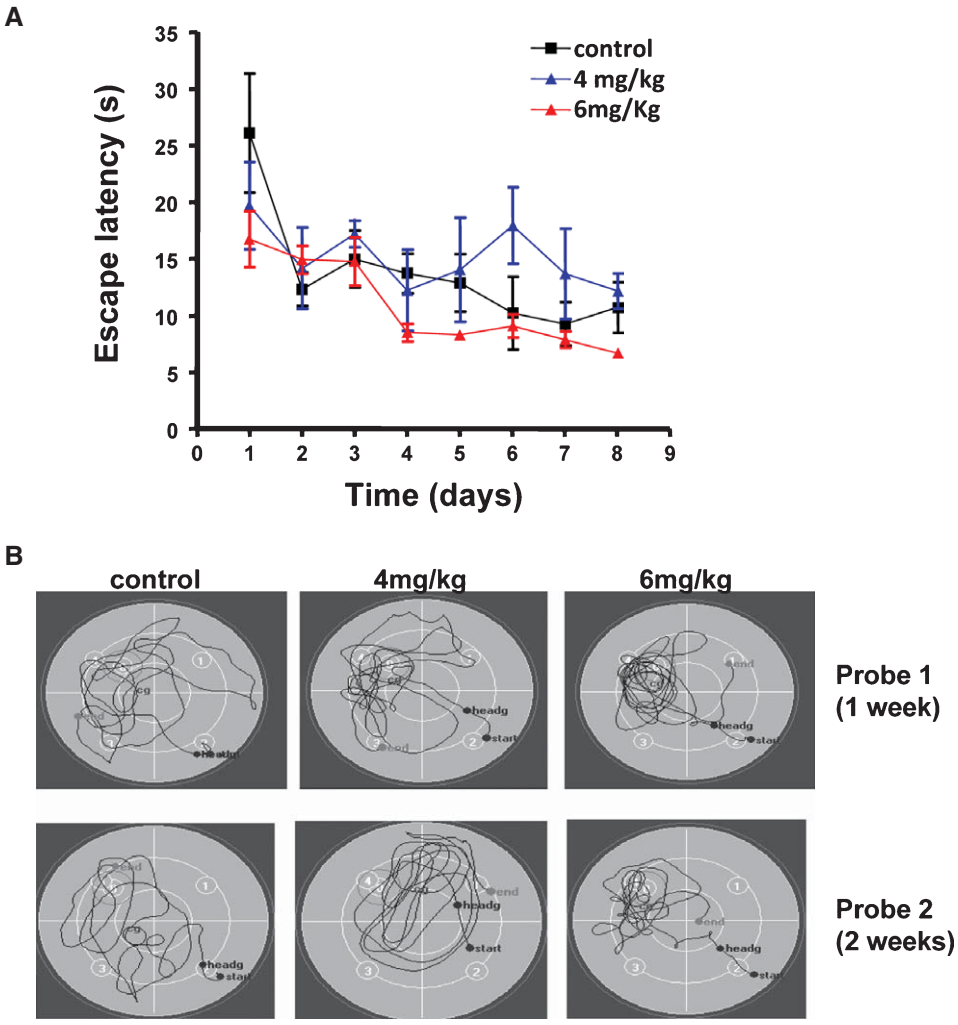



Supplementary Figure 1. Immature neurons in the DG show more complex morphology in mice treated with IDN5706. Two-month old mice were injected i.p. with 4 and 6 mg $kg^{-1}$ IDN5706 or vehicle solution as control 3 times a week per 4 weeks, followed by 3 d of i.p. injections of 50 mg $kg^{-1}$ BrdU twice a day, and then continued IDN5706 treatment for 2 more weeks. Images correspond to higher magnifications of images shown in Fig. 2. DCX+ (green) cells show more complex branching in mice treated with 4 and 6 mg $kg^{-1}$ IDN5706 than control mice injected with vehicle solution.




Supplementary Figure 2. Improved long-term retention of spatial memory by treatment with IDN5706. Mice were injected i.p. with 4 and 6 $mgkg^{-1}$ IDN5706 or vehicle solution as control, 3 times a week per 9 weeks, and 2 weeks after last injection were trained in the standard hidden platform version of the Morris water maze. A) Escape latency to reach the platform was not statistically different in control mice and mice treated with different doses of IDN5706. B) Probe trials were performed 1 and 2 weeks after the last training day. Representative swimming path of probe tests 1 week or 2 weeks after the last day of training are shown.