

# Supplemental Fig 1

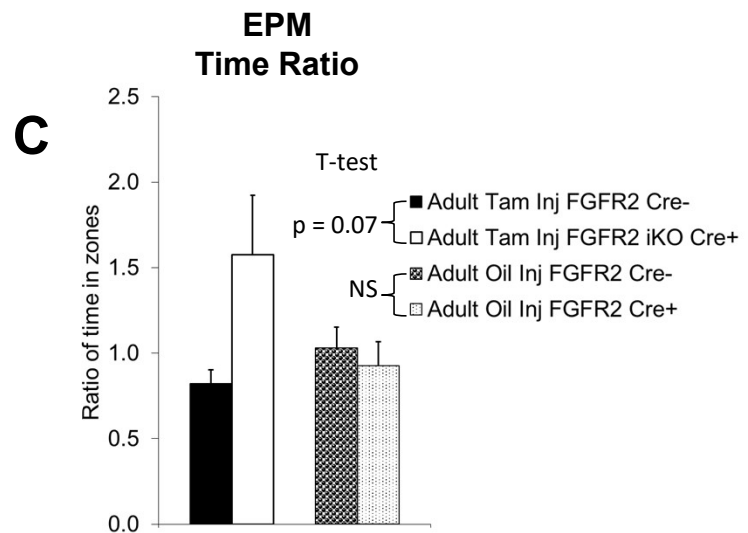
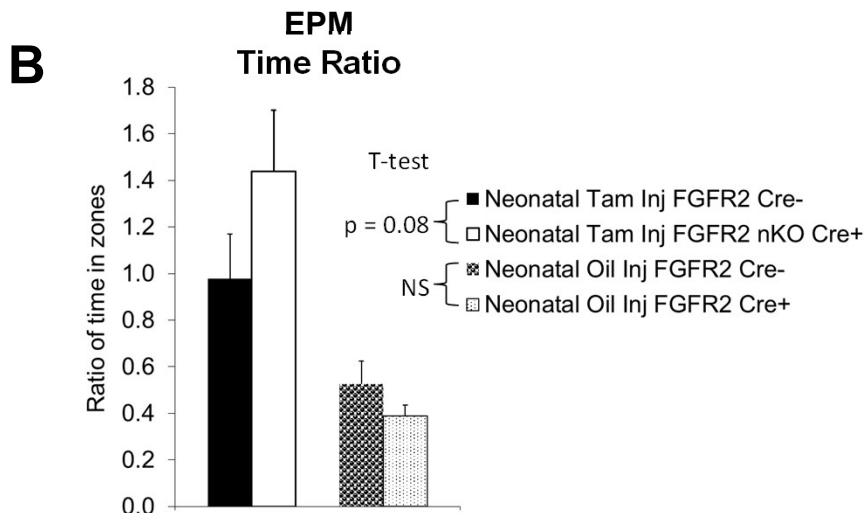
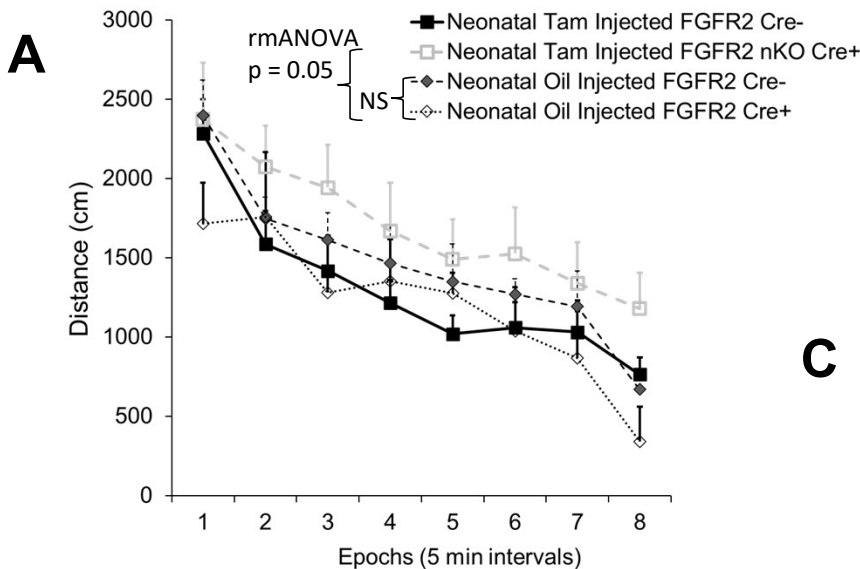
Additional Controls: **A,B**. Comparison of neonatal vehicle/oil injected FGFR2 Cre- and Cre+ control mice with neonatal tamoxifen injected FGFR2 Cre- and nKO Cre+ mice on two key behavioral tasks for which there were differences for Tam-induced FGFR2 nKO.

**A**. Increased activity in open field of Tam-injected Cre+ animals compared to Oil-injected Cre+ animals (rmANOVA  $n=3$  oil inj Cre+ vs  $n=10$  tam inj Cre+, rmANOVA:  $F(1, 11) = 4.574$ ,  $p=0.056$ ). Neonatal Tam Inj FGFR2 Cre- mice ( $n=10$ ) and Neonatal Oil Inj Cre+ mice ( $n=5$ ) included for demonstration of similarity to Neonatal Oil Inj FGFR2 Cre+ mice.

**B**. Time Ratio in Zones of Elevated Plus Maze. Difference of Cre- and Cre+ Tam Inj mice ( $n=10,10$ ) shown for comparison to no difference in Cre- and Cre+ Oil Inj mice ( $n=3,5$ ). (NS= No significant difference or trend)

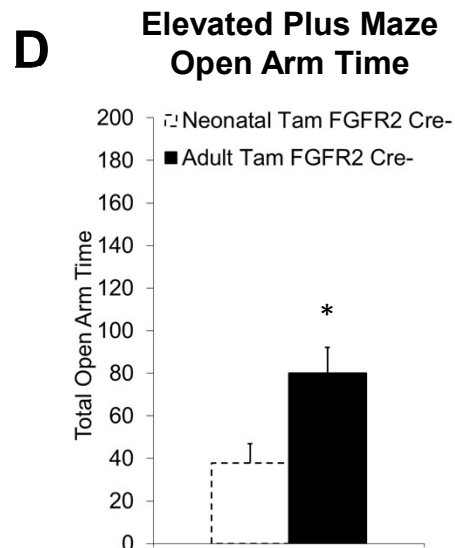
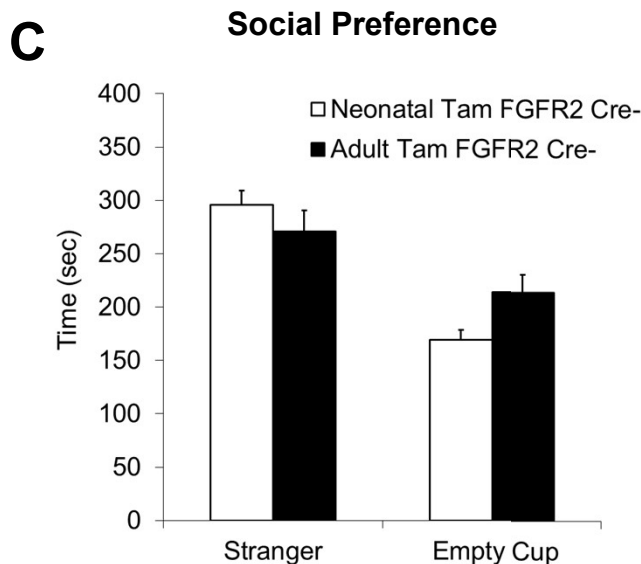
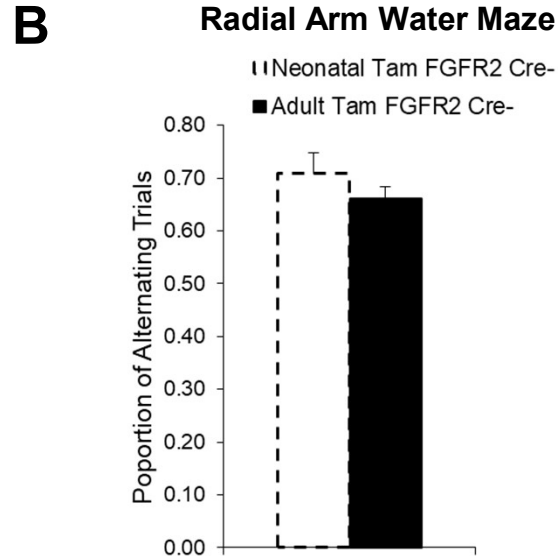
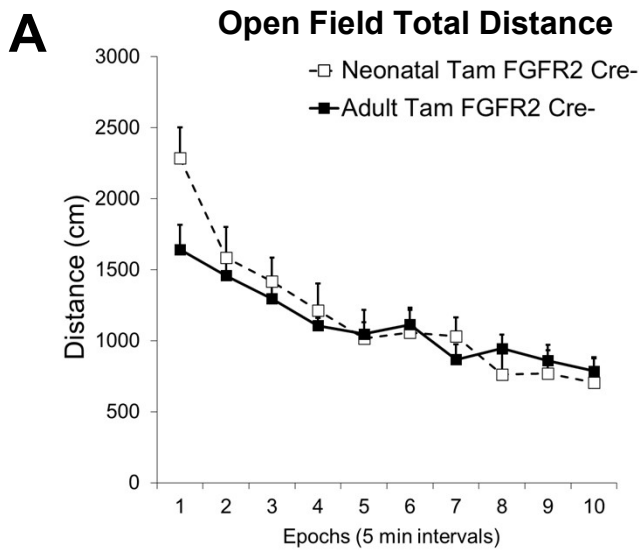
**C**. Comparison of adult vehicle/oil injected FGFR2 Cre- and Cre+ control mice with adult tamoxifen injected FGFR2 Cre- and iKO Cre+ mice on the only behavioral task for which there was a difference for Tam-induced FGFR2 iKO. Time Ratio in Zones of the Elevated Plus Maze. Difference of Cre- and Cre+ Tam Inj mice ( $n=7,10$ ) shown for comparison to no difference in Cre- and Cre+ Oil Inj mice ( $n=3,4$ ) (NS= No significant difference or trend)

## Open Field Total Distance

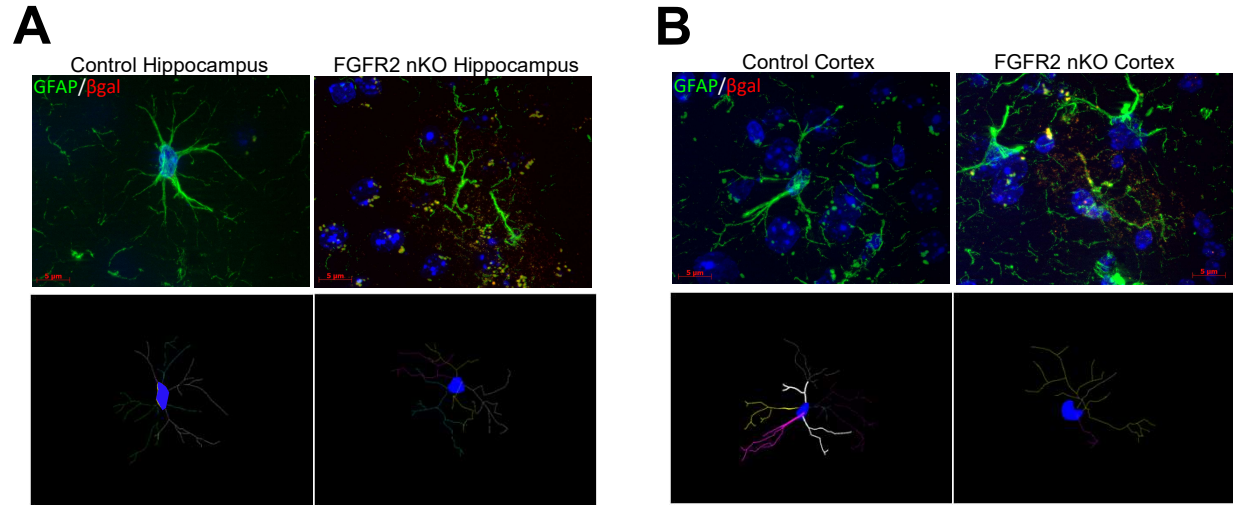


# Supplemental Fig 2

Comparison of neonatal tamoxifen injected FGFR2 Cre- controls with adult tamoxifen injected FGFR2 Cre- controls (n=9 neonatal tam vs n=6 adult tam). A: No difference in Open Field Activity (rmANOVA: F (1, 130) = 1.034, p=0.311); B: No difference in Y-maze Spontaneous Alternation (p=0.38); C: No difference in Social Preference (two-way ANOVA interaction: F (1, 26) = 1.726, p=0.2004); D: Increased time in Open Arms of Elevated Plus Maze in adult tamoxifen injected FGFR2 Cre- Controls (p=0.012).



# Supplemental Fig 3



Visualization of overall normal astrocyte structure in control and FGFR2 nKO mice

Supplemental Table 1. Quantification of FGFR2 knock out with neonatal tamoxifen induction of *hGFAP-CreER<sup>T2</sup>*

	<b>Control <i>Fgfr2</i> Gene Expression Mean ± SEM</b>	<b>FGFR2 nKO <i>Fgfr2</i> Gene Expression Mean ± SEM</b>	<b>Difference</b>	<b>P value Difference</b>
<b>Juvenile Cortex</b>	1.00 ±0.07 (n=8)	0.71 ± 0.07 (n=6)	↓29%	0.08 <sup>‡</sup>
<b>Juvenile Hippocampus</b>	1.00 ±0.08 (n=8)	0.61 ± 0.04 (n=6)	↓39%	0.03*
<b>Adult Anterior Cortex</b>	0.87 ±0.10 (n=3)	0.49 ± 0.04 (n=3)	↓43%	0.03*
<b>Adult Posterior Cortex</b>	1.21 ±0.11 (n=3)	0.69 ± 0. (n=3)	↓43%	0.01*
<b>Adult Hippocampus</b>	0.74 ±0.14 (n=3)	0.5 ±0.07 (n=3)	↓33%	0.18

\* significance  $p < 0.05$ ; ‡-trending significance,  $0.05 \leq p < 0.15$