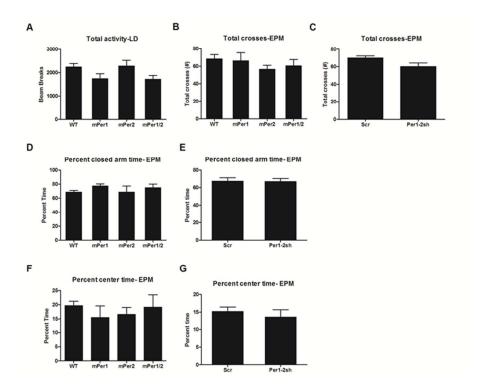
## Supplemental figure legends:

## **Supplemental figure 1**

Total activity measures for the L/D test (A) (n = 25, WT; n = 7, *mPer1*; n = 12, *mPer2*; n = 11, *mPer1/2*) and EPM test (B) (n = 20, WT; n = 8, *mPer1*; n = 14, *mPer2*; n = 9, *mPer1/2*) for the *mPer* mutant animals. Total crosses in the EPM for the AAV-mPer1;mPer2 shRNA infused animals (n = 10) versus WT (n = 11). (C). Closed arm entries for the *mPer* mutant animals (D) and AAV-mPer1;mPer2 shRNA (G). Percent time in the closed arms (E,H) and center (F,I) of the EPM for the *mPer* mutant animals (E,F) and AAV-mPer1;mPer2 shRNA infused animals (H,I). No significant differences were found in any of these measures.

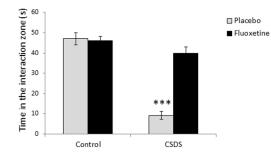
## **Supplemental figure 2**

Social interaction measures of animals following 10 days of social defeat stress and 28 days of fluoxetine treatment. Placebo treated mice spent less time interacting with a target mouse and there was a significant defeat x fluoxetine interaction,  $F_{(1,140)} = 21.33$ , P<0.05 (n = 37-41/group).



Supplemental figure 1

Total activity measures for the L/D test (A) (n = 25, WT; n = 7, mPer1; n = 12, mPer2; n = 11, mPer1/2) and EPM test (B) (n = 20, WT; n = 8, mPer1; n = 14, mPer2; n = 9, mPer1/2) for the mPer mutant animals. Total crosses in the EPM for the AAV-mPer1;mPer2 shRNA infused animals (n = 10) versus WT (n = 11). (C). Closed arm entries for the mPer mutant animals (D) and AAV-mPer1;mPer2 shRNA (G). Percent time in the closed arms (E,H) and center (F,I) of the EPM for the mPer mutant animals (E,F) and AAV-mPer1;mPer2 shRNA infused animals (H,I). No significant differences were found in any of these measures.



Supplemental figure 2 Social interaction measures of animals following 10 days of social defeat stress and 28 days of fluoxetine treatment. Placebo treated mice spent less time interacting with a target mouse and there was a significant defeat x fluoxetine interaction, F(1,140) = 21.33, P<0.05 (n = 37-41/group).