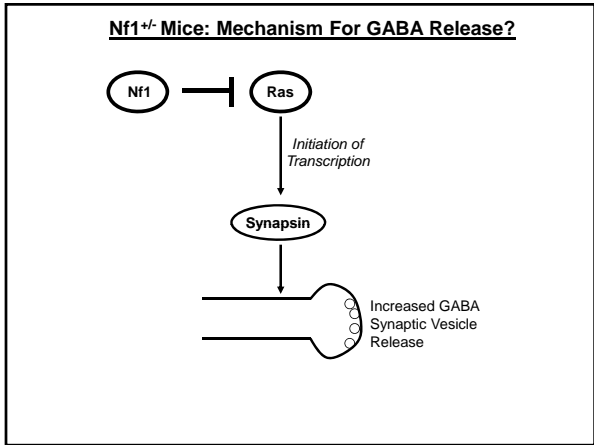
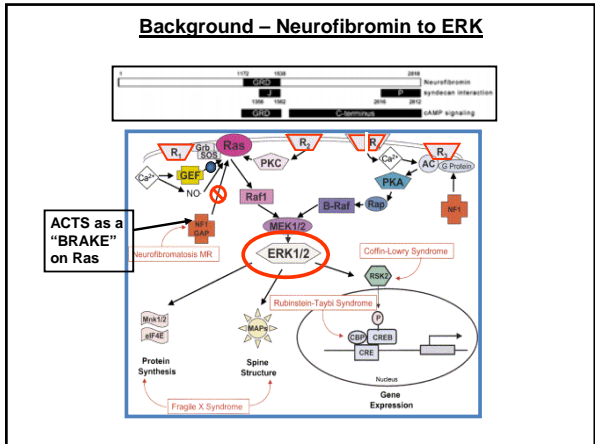
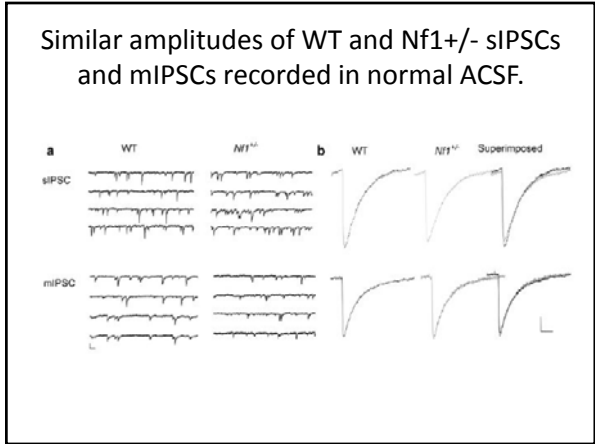
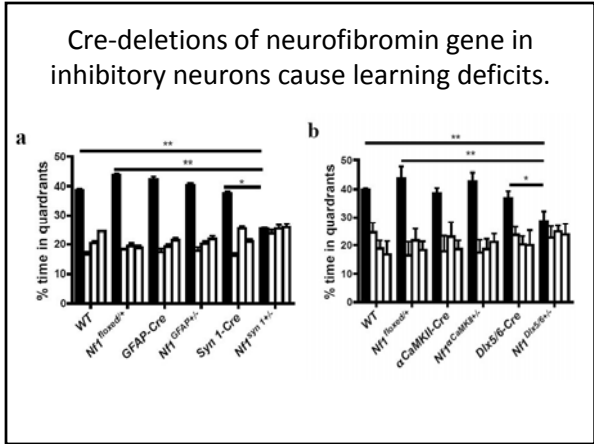


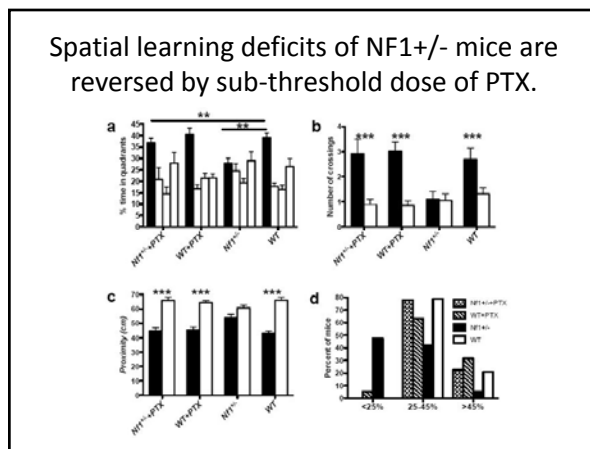
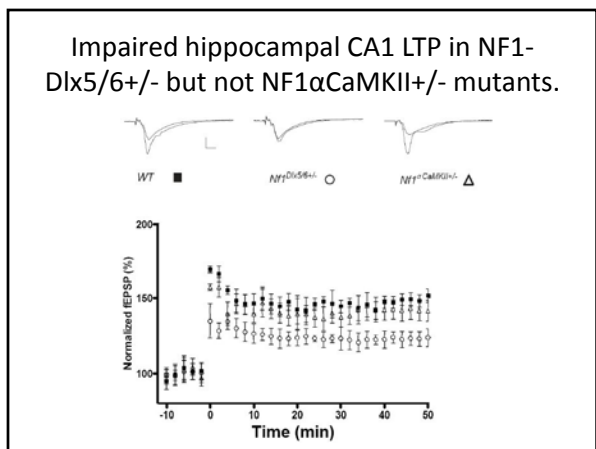
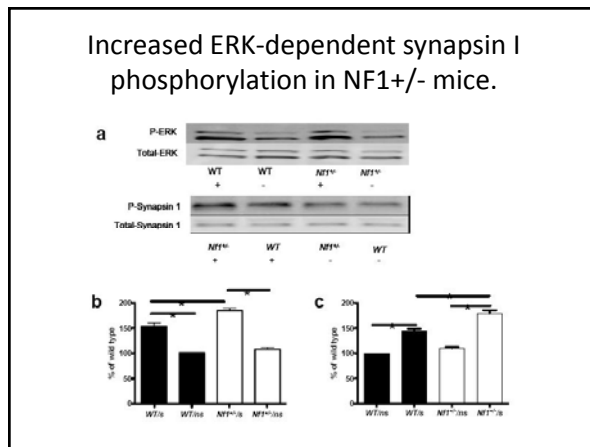
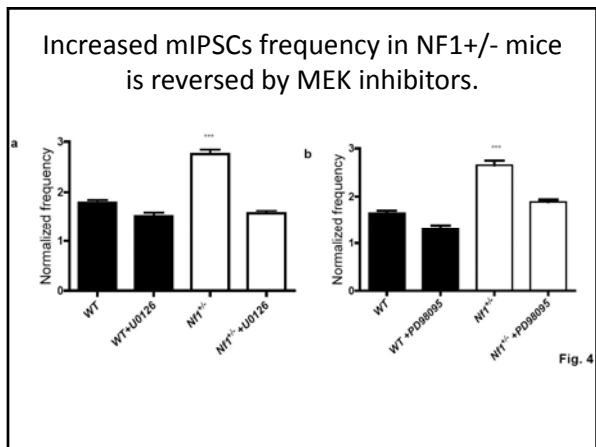
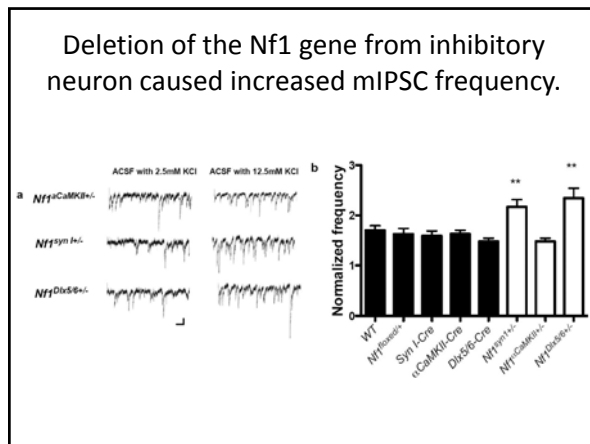
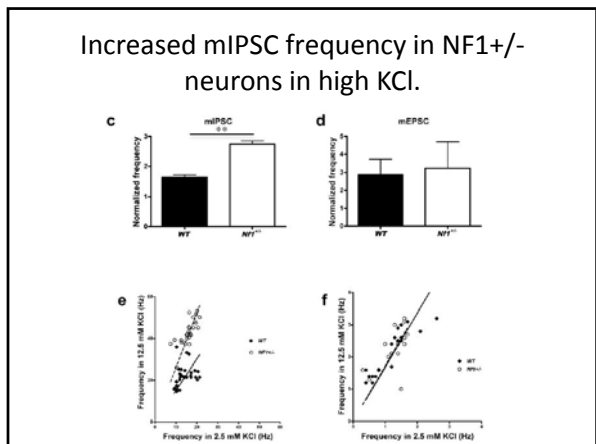
Neurofibromin regulation of ERK signaling modulates GABA release and learning.

Submitted 2008, Cui, Costa, Murphy, Elgersma, Zhu, Gutmann, Parada, Mody, Silva.

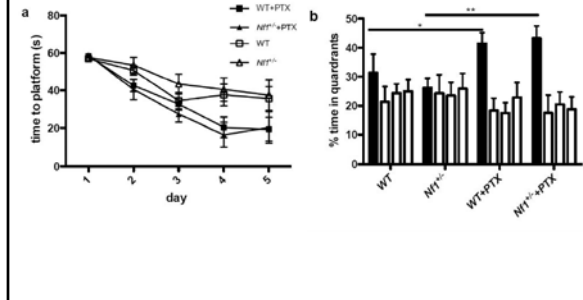


- Testing the Link of NF1 to GABA Release**
- Compare mIPSC's and mEPSC's *Nf1^{+/-}* mice brain slice to WT: during depolarization at baseline, HFS (simulated with high K⁺ and Kynuric Acid in ACSF), indirectly detect GABA transmission.
 - Use MEK-inhibition to block Ras-ERK signaling and monitor GABA transmission.
 - Deletion of Nf1 gene – what deficits can this produce?
 - Decreasing GABA-mediated inhibition, can this reverse the learning deficit induced by *Nf1^{+/-}*?
 - What changes can be detected in GABA in a spatial learning task?





Spatial learning in the water maze of Nf1+/- mice treated with large PTX dose.



Spatial learning increases mIPSC frequency in hippocampal CA1 neurons.

