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Broad Topic: Synapse Stability

Specific Topic: Retrograde signaling to axon

What is Known: Postsynaptic side talks to presynaptic side

Experimental Question: Does retrograde AMPA signaling stabilize synapses?

	Panel	Technique:	These data show:
Figure 1	A	Transfected neurons w/ GFP	Transfection was successful
	B	Immunostained for PSD95	Synapses were formed
	C	Counted stable vs. transient puncta	80% of synapse were transient
	D	Stained for AMPA receptors	Stable synapses are AMPAR+
Figure 2	A	Transfected dominant-neg form of AMPARs	Transfection was successful
	B	Stained for DN-AMPARS and PSD95	DN-AMPARs localize to the postsynaptic membrane
Figure 3	A	Counted stable puncta in DN-AMPAR+ neurons	Neurons with DN construct had fewer stable puncta. AMPAR contributes to synaptic stability.
	B	Overexpressed STG in wild-type neurons and counted stable puncta	More stable puncta observed. STG contributes to synapse stability