

Fig 1

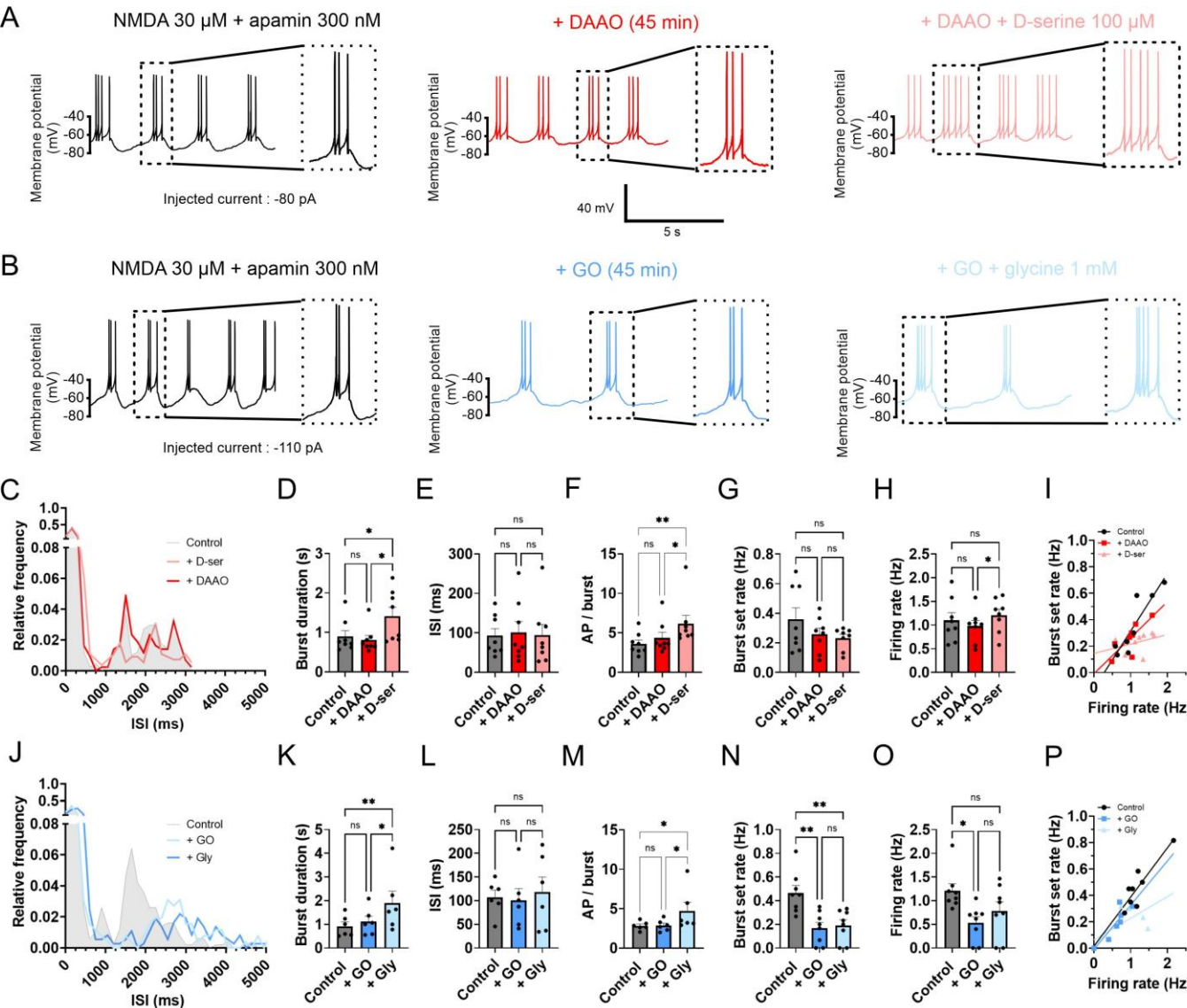
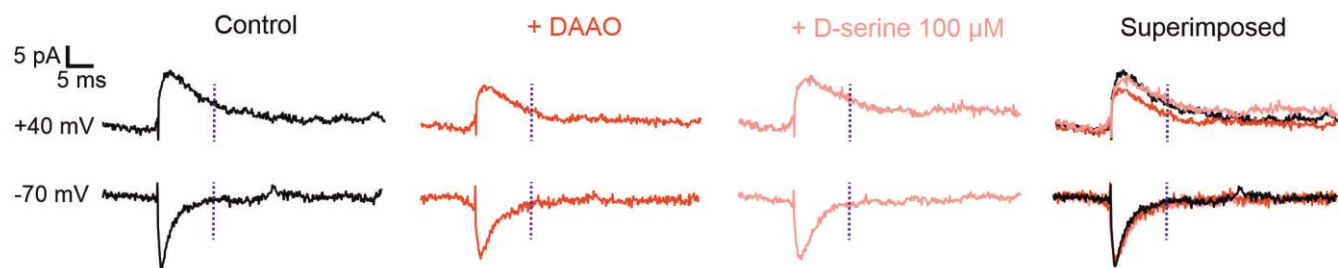
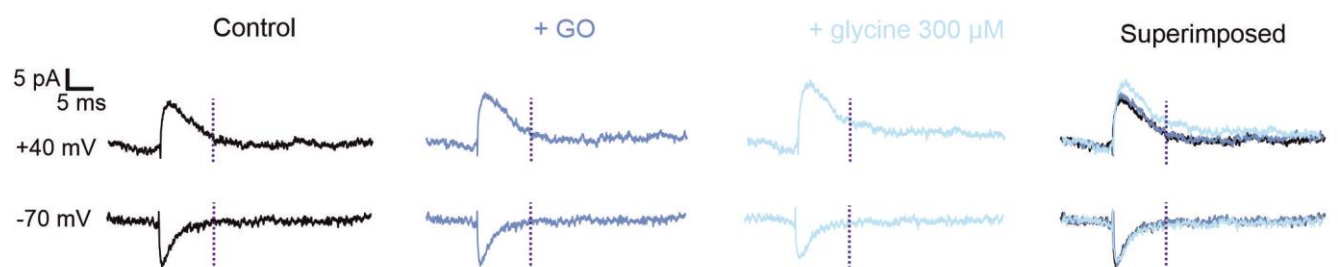


Fig 2

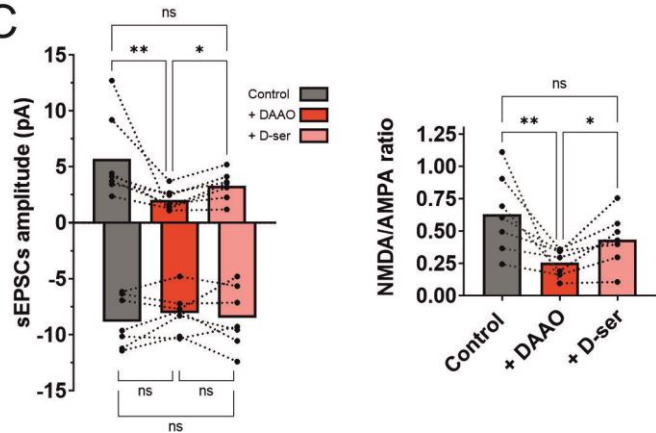
A



B



C



D

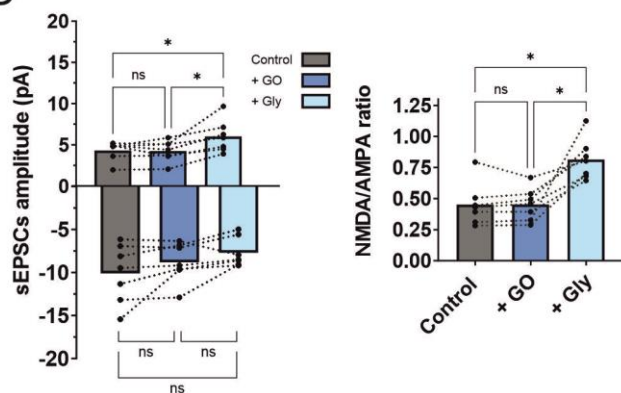


Fig 3

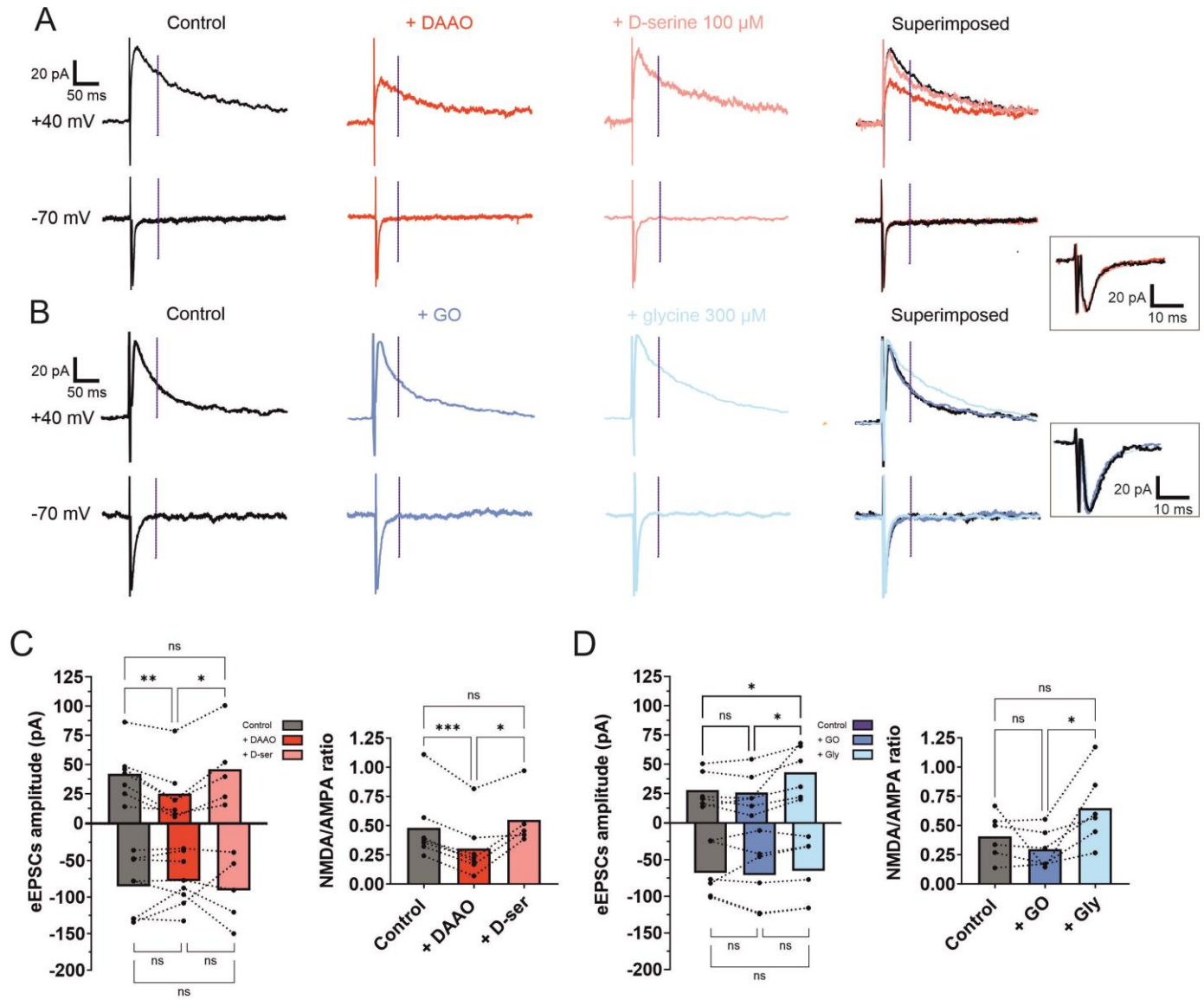


Fig 4

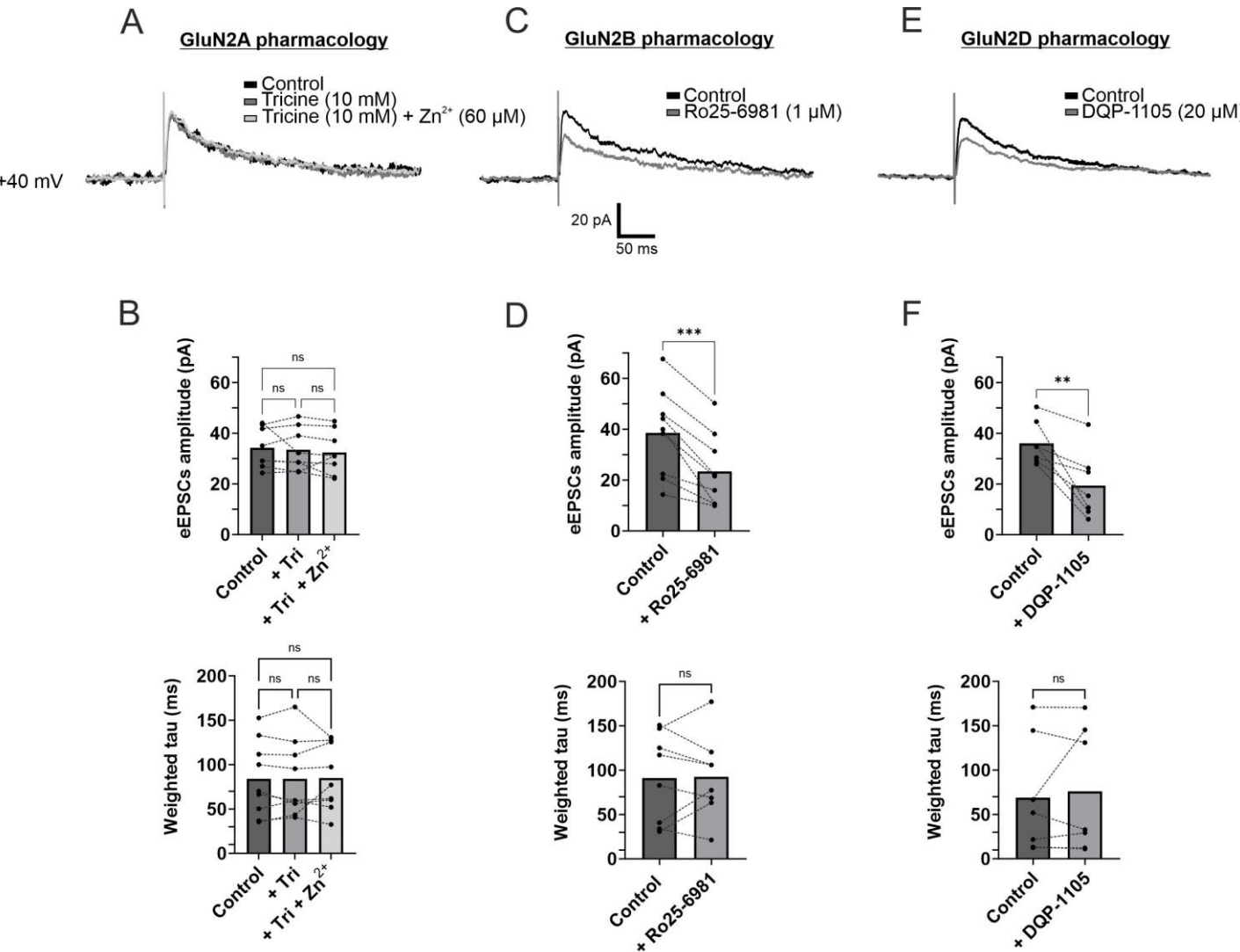


Fig 5

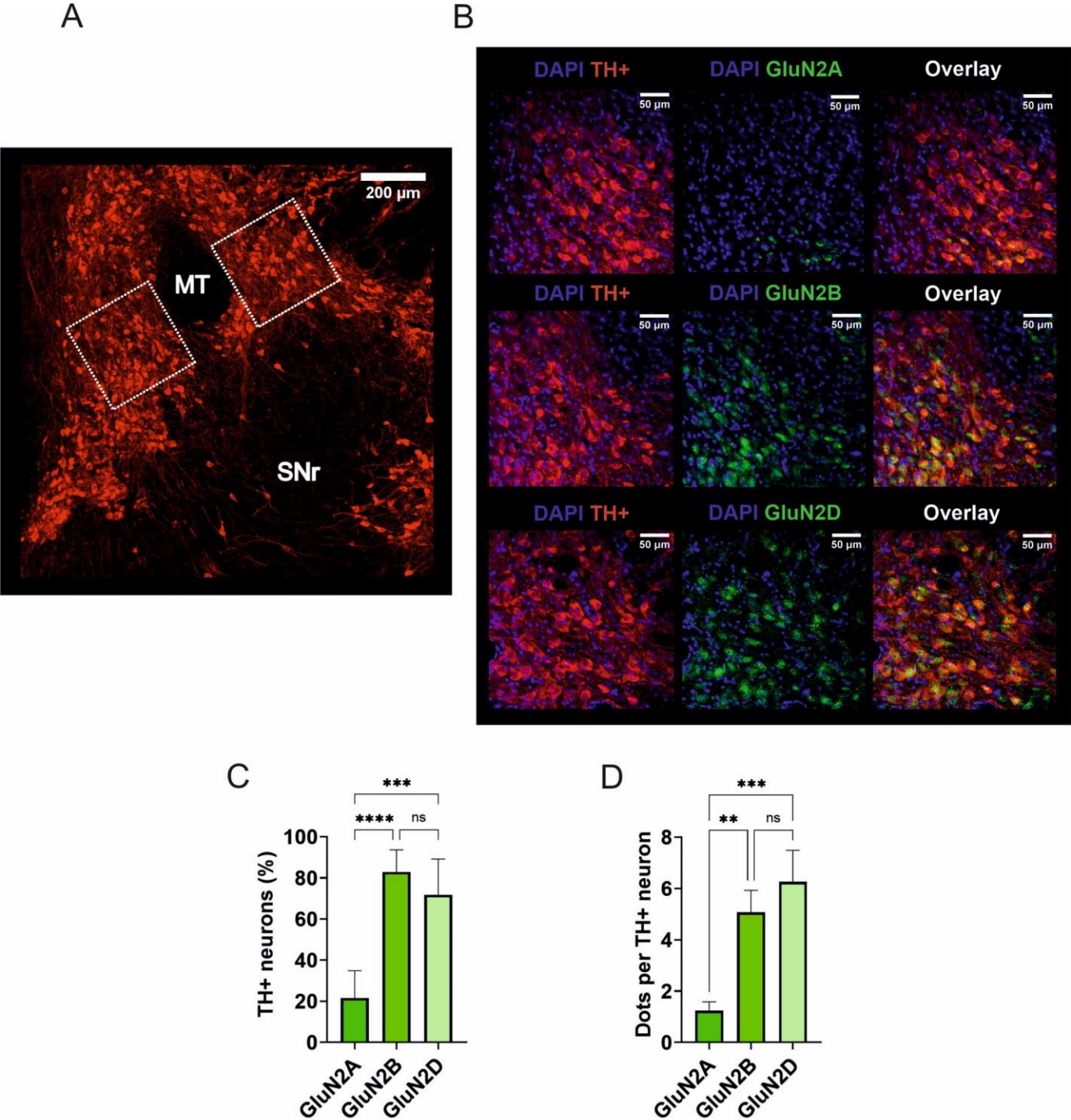


Fig 6

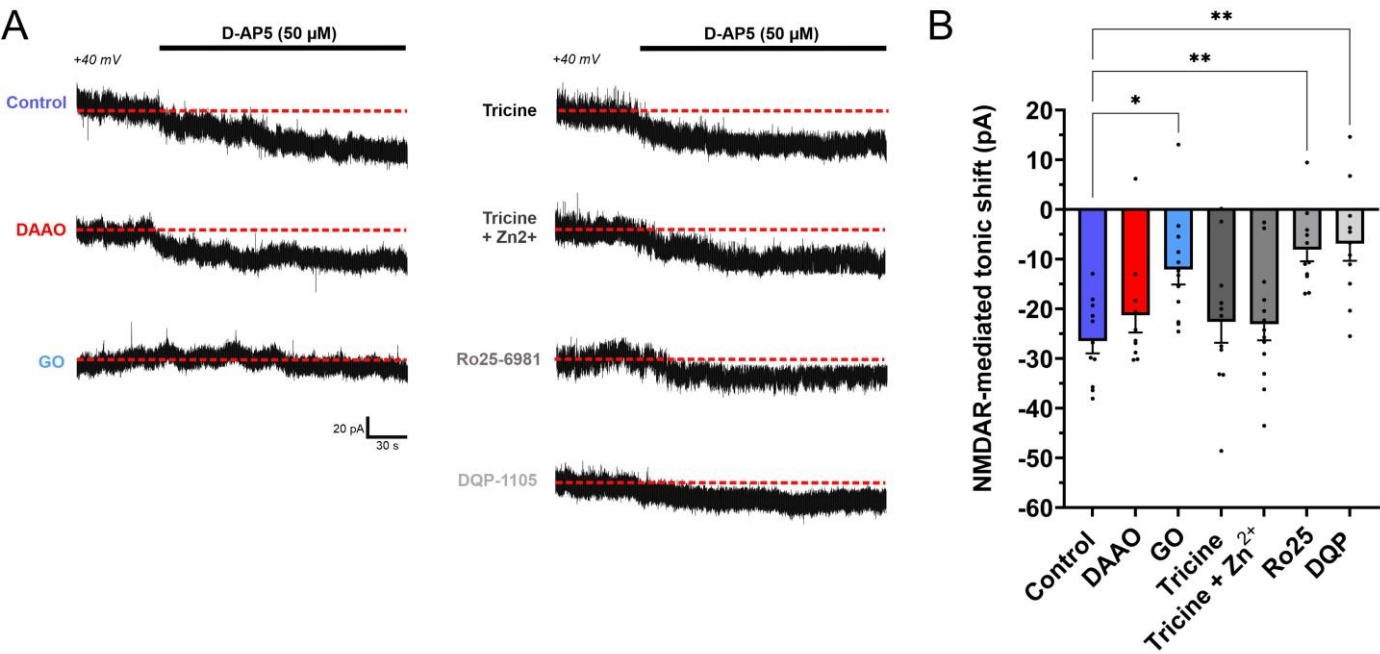
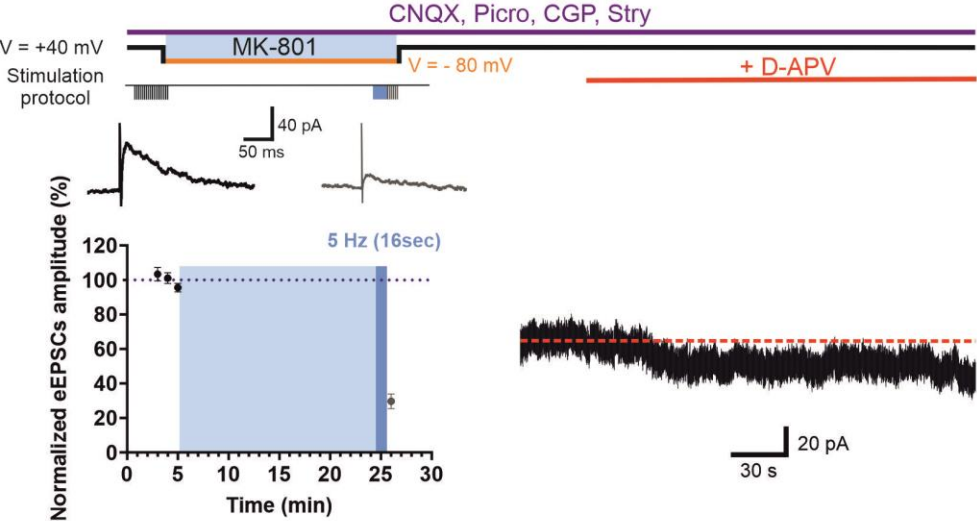


Fig 7

A Inhibition of synaptic NMDARs



B Inhibition of synaptic and extrasynaptic NMDARs

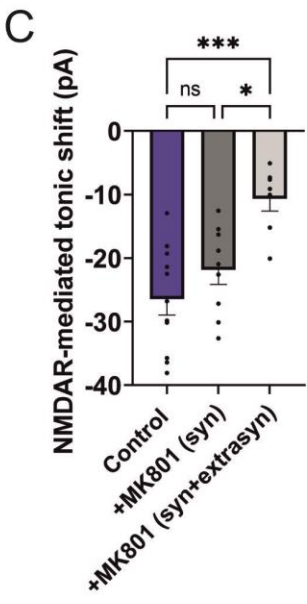
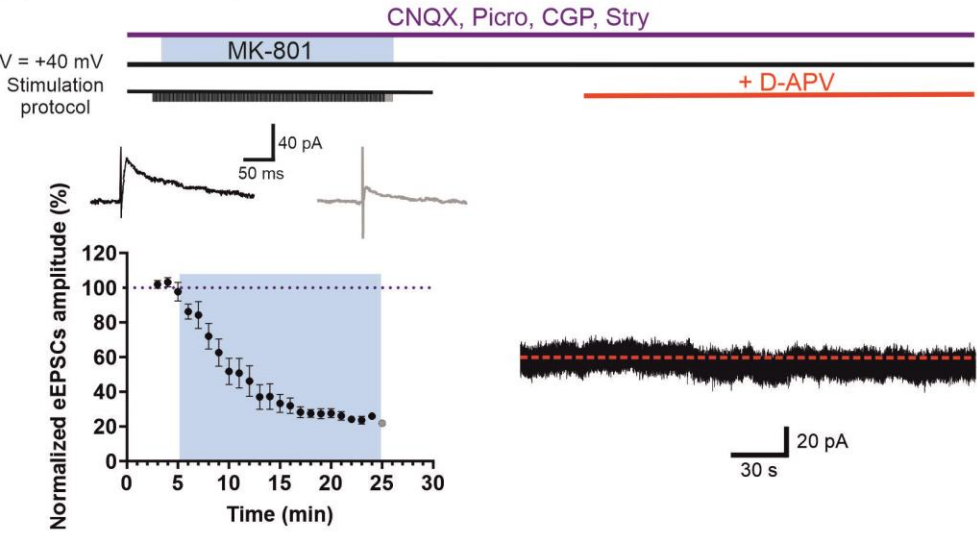


Fig 8

A Inhibition of synaptic NMDARs and burst induction

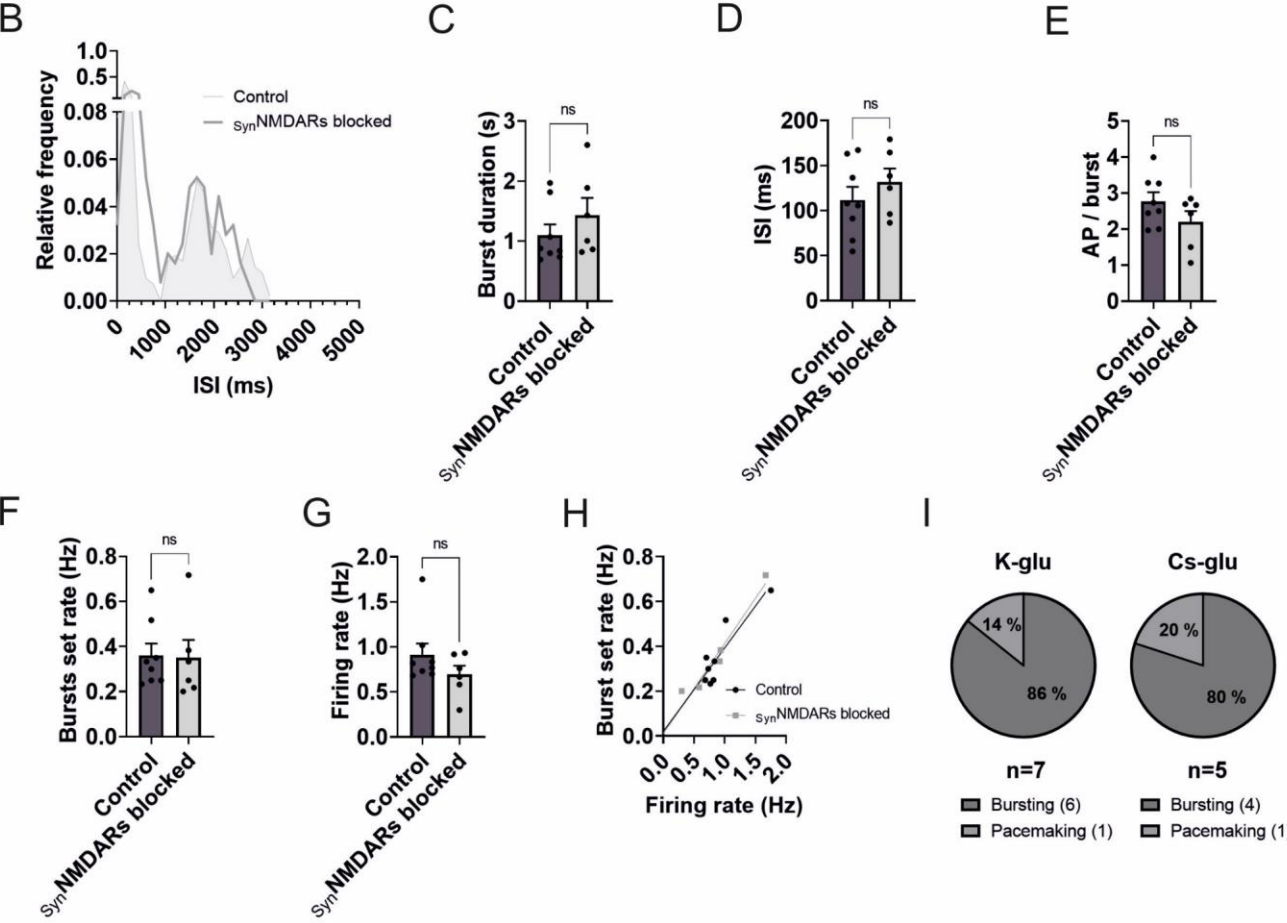
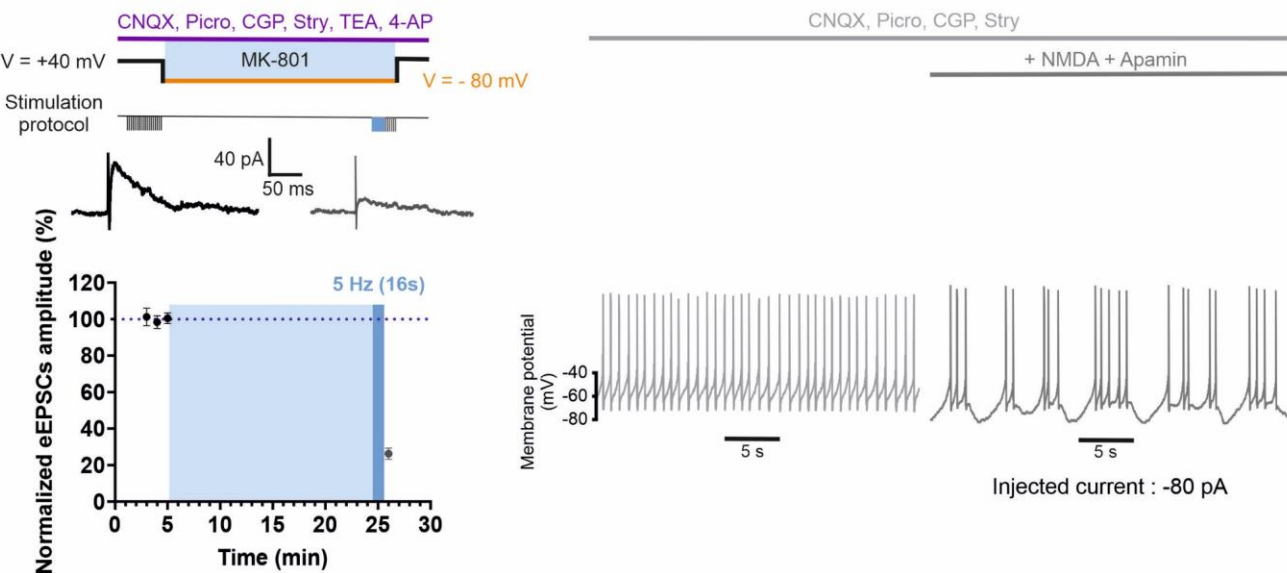


Table 1 . Effects of enzymatic treatment with DAAO and GO on bursting activity parameters

Experimental conditions	Burst duration (s)	ISI (ms)	AP/burst	Burst set rate (Hz)	Firing rate (Hz)	slope	R2	P value of slope
Control (N=6)	0.90 ± 0.15	92.64 ± 17.92	3.61 ± 0.48	0.36 ± 0.08	1.10 ± 0.16	0.44 ± 0.09	0.81	0.0025
DAAO (n= 6)	0.81 ± 0.12 (p = 0.6171)	101.30 ± 27.42 (p = 0.9484)	4.34 ± 0.72 (p = 0.9519)	0.26 ± 0.04 (p = 0.1376)	0.98 ± 0.12 (p = 0.2435)	0.27 ± 0.09	0.62	0.0200
DAAO + D-Serine (100 µM) (n= 6)	1.41 ± 0.23 (p = 0.0124)	93.85 ± 27.52 (p = 0.9981)	6.16 ± 1.05 (p = 0.0014)	0.23 ± 0.03 (p = 0.1684)	1.21 ± 0.13 (p = 0.5762)	0.07 ± 0.08	0.12	0.4089
Control (n= 8)	0.92 ± 0.18	107.40 ± 14.93	2.84 ± 0.22	0.47 ± 0.06	1.21 ± 0.15	0.37 ± 0.08	0.79	0.0034
GO (n= 8)	1.11 ± 0.23 (p = 0.7976)	100.70 ± 24.69 (p = 0.9801)	2.87 ± 0.29 (p > 0.9999)	0.17 ± 0.05 (p = 0.0042)	0.53 ± 0.13 (p = 0.0179)	0.34 ± 0.06	0.83	0.0016
GO + glycine (1 mM) (n= 8)	1.90 ± 0.51 (p = 0.0190)	117.90 ± 31.93 (p = 0.9521)	4.71 ± 1.10 (p = 0.0281)	0.19 ± 0.05 (p = 0.0053)	0.78 ± 0.19 (p = 0.2404)	0.16 ± 0.07	0.45	0.0668

Numerical values are given as mean ± SEM

P value regarding the control

Table 2 . Effects of time and blockade of synaptic NMDARs on bursting activity parameters								
Experimental conditions	Burst duration (s)	ISI (ms)	AP/burst	Burst set rate (Hz)	Firing rate (Hz)	slope	R2	P value of slope
Control 0 min (N=8)	1.10 ± 0.18	111.70 ± 14.68	2.78 ± 0.25	0.36 ± 0.05	0.91 ± 0.13	0.37 ± 0.08	0.80	0.0027
Control 45 min (n= 8)	1.15 ± 0.18 (p = 0.8438)	105.20 ± 13.37 (p = 0.6917)	2.95 ± 0.33 (p = 0.3294)	0.29 ± 0.05 (p = 0.1752)	0.79 ± 0.09 (p = 0.2656)	0.36 ± 0.15	0.51	0.0477
synNMDAR blocked (n= 6)	1.43 ± 0.29 (p = 0.2824)	131.70 ± 14.98 (p = 0.3670)	2.20 ± 0.30 (p = 0.1636)	0.35 ± 0.08 (p = 0.9106)	0.69 ± 0.10 (p = 0.2824)	0.40 ± 0.05	0.95	0.0010
Numerical values are given as mean ± SEM			P value regarding the control					