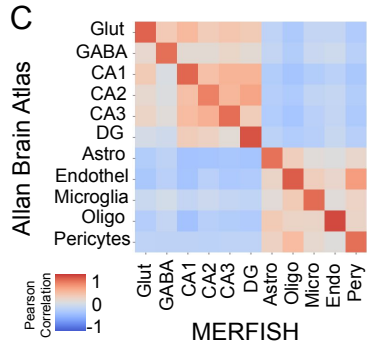
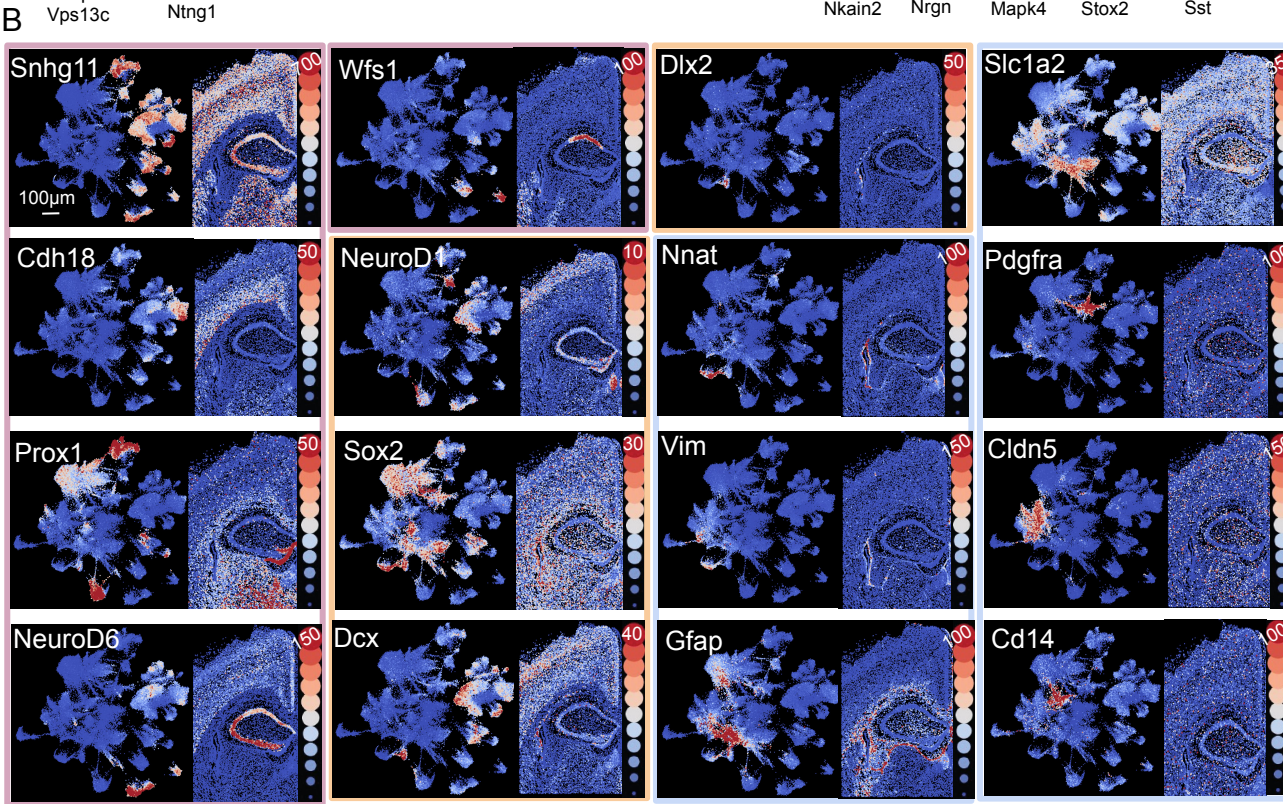


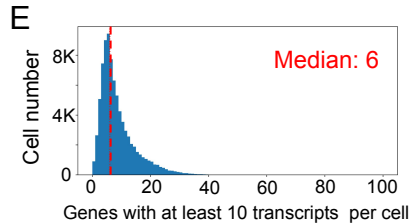
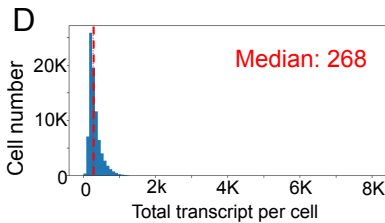
Neuron subtype		Glia subtype		Intermediates Glia-to-neuron			Allen Brain Atlas Cell clustering				
Kif4	Wfs1	Acta2	S100b	Bcl2	Mki67	Slit2	Abhd2	Cntnap5b	Fxyd6	Prkg1	Synpr
Lhx3	Zfp36l1	Agt	S1pr3	Bdnf	Neurod1	Sox11	Acer3	Cox6a1	Fyn	Mal	Tenm2
Lhx6	Calb1	Aif1l	Serpinf1	Bmp2	Neurog1	Tbr1	Actb	Csmd1	Gm10076	Psap	Tmem108
Mtrf1	Cd14	Aldh1a1	Serping1	Bmp4	Neurog2	Zfp36l1	Actg1	Marcks	Gm26917	Ptgds	Tmsb10
Nectin3	Cd74	Aldoc	Sin3a	Dcx	Nog	Cspg4	Adarb2	Mast4	Gm28928	Rasl10a	Tmsb4x
Nell1	Dsp	Aqp4	Slc1a3	Dlx1	Notch3	Nestin	Adcy1	Mcu	Gm32647	Rbms3	Top2a
Nes	Fbl1l	Arx	Slc2a1	Dlx2	Pax6	Ccd2	Adcy2	Meg3	Gm49164	Reln	Tpt1
Neurod2	Foxa1	Ascl1	Slco1c1	Dpysl3	Top2A	Oct3/4	Adgrl3	Cspg5	Gnb1	Robo1	Trim2
Neurod4	Foxa2	Cd14	Sox10	Elavl3	Ccd1	Mcm2	Ahcyl2	Cst3	Gpm6a	Rpl38	Trps1
Neurod6	Frzb	Cldn5	Sox9	Elavl4	Plxna1	Tbr2	Atp1a2	Dcc	Gpr17	Scd2	Tshz2
Ngf	Gabbr1	Eomes	Steap4	Hes5	Sema3a	Lhx6	Atp1b1	Dgat2	Grb14	Sdk1	Unc5c
Nmb	Gabra1	Fam107a	Tgfb1				Auts2	Dgkb	H2afz	Selenop	Wdr17
Ntf3	Gabra2	Gfap	Unc13b				Brinp3	Dgkh	Hdac8	Sept7	Wipf3
Ntrk2	Gad1	Gja1	Unc13c				Bsg	Efnas	Mgat4c	Sgcd	Zbtb20
Pnoc	Gda	Gli1	Vim				Bsn	Egfm1	Nnat	Sgcx	Hmgn3
Pou3f2	Gja1	Hapln2	Zfp36l1				C1qa	Eif4a2	Nxph1	Sgk1	Hs6st3
Prox1	Gm11549	Mbp					C1q1a	Erbb4	Opalin	Slc1a2	Id3
Pvalb	Gpc4	Mertk					C1ql3	F3	Opcml	Snhg11	Inpp4b
Rbfox3	Grp	Nkain4					Cck	Fam214a	Pam	Sorcs1	Junb
Slc5a7	Hapln2	Ogt					Cdh12	Flt1	Pde10a	Mt2	Kcnd2
Smarca4	Htt	Olig1					Cdh13	Fos	Pde1a	Nckap5	Lrp1b
Tardbp	Nr3c2	Olig2					Cdh18	Frmd4a	Pex5l	Ndst4	Lrrtm4
Thy1	Nrg3	Pdgfra					Chrdl1	Fth1	Plekha1	Necab3	Lsamp
Vip	Nrxn3						Cnr1	Fxyd6	Plp1	Spag5	Malat1
Vps13c	Ntng1						Nkain2	Nrgn	Mapk4	Stox2	Sst

Ptbp1
Related genes

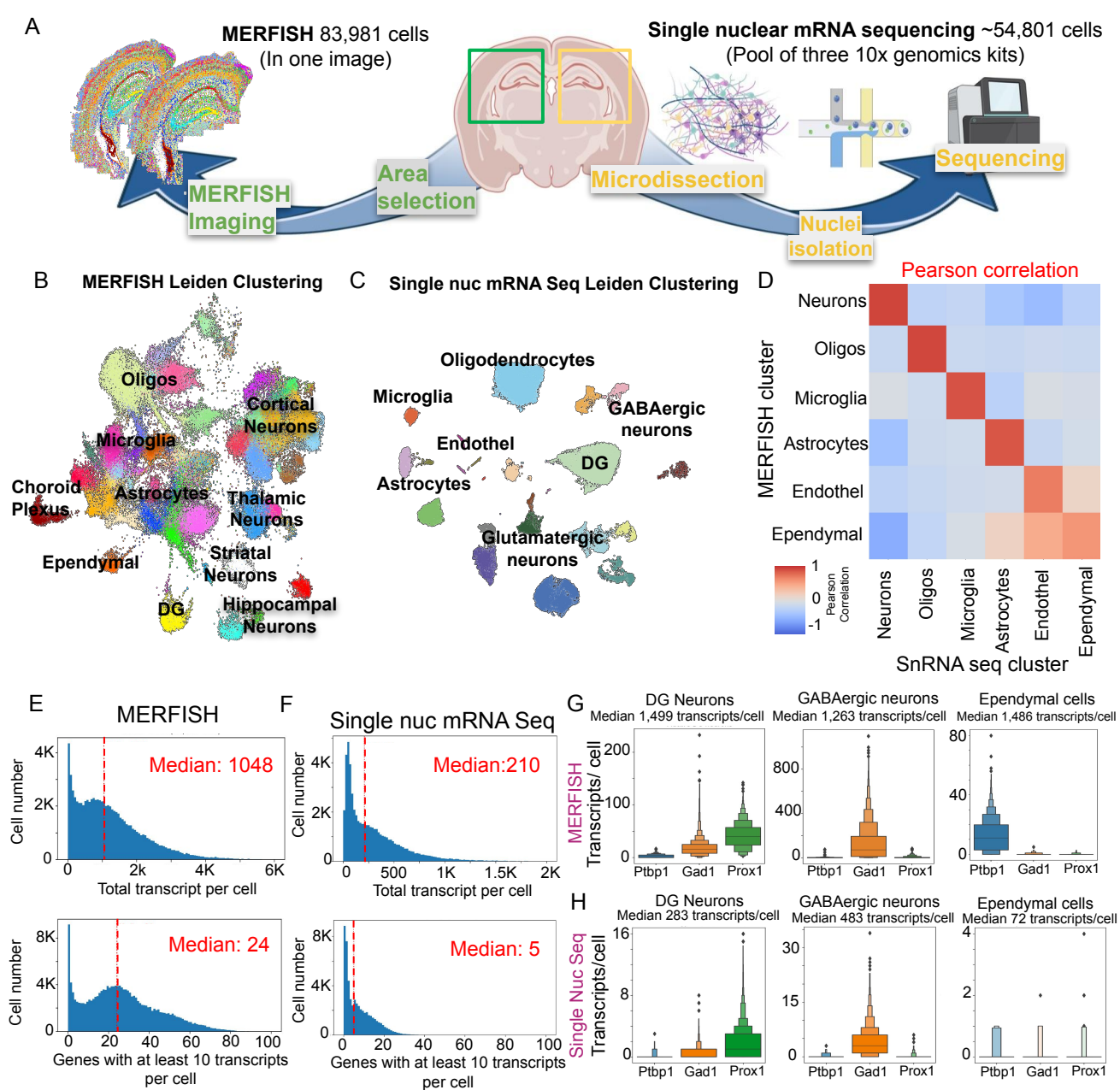
Clasp1 Rtn4 Trex
NeuroD1 Pbx1 Brn2
PTBP2 Pnky
Rest Ifr1



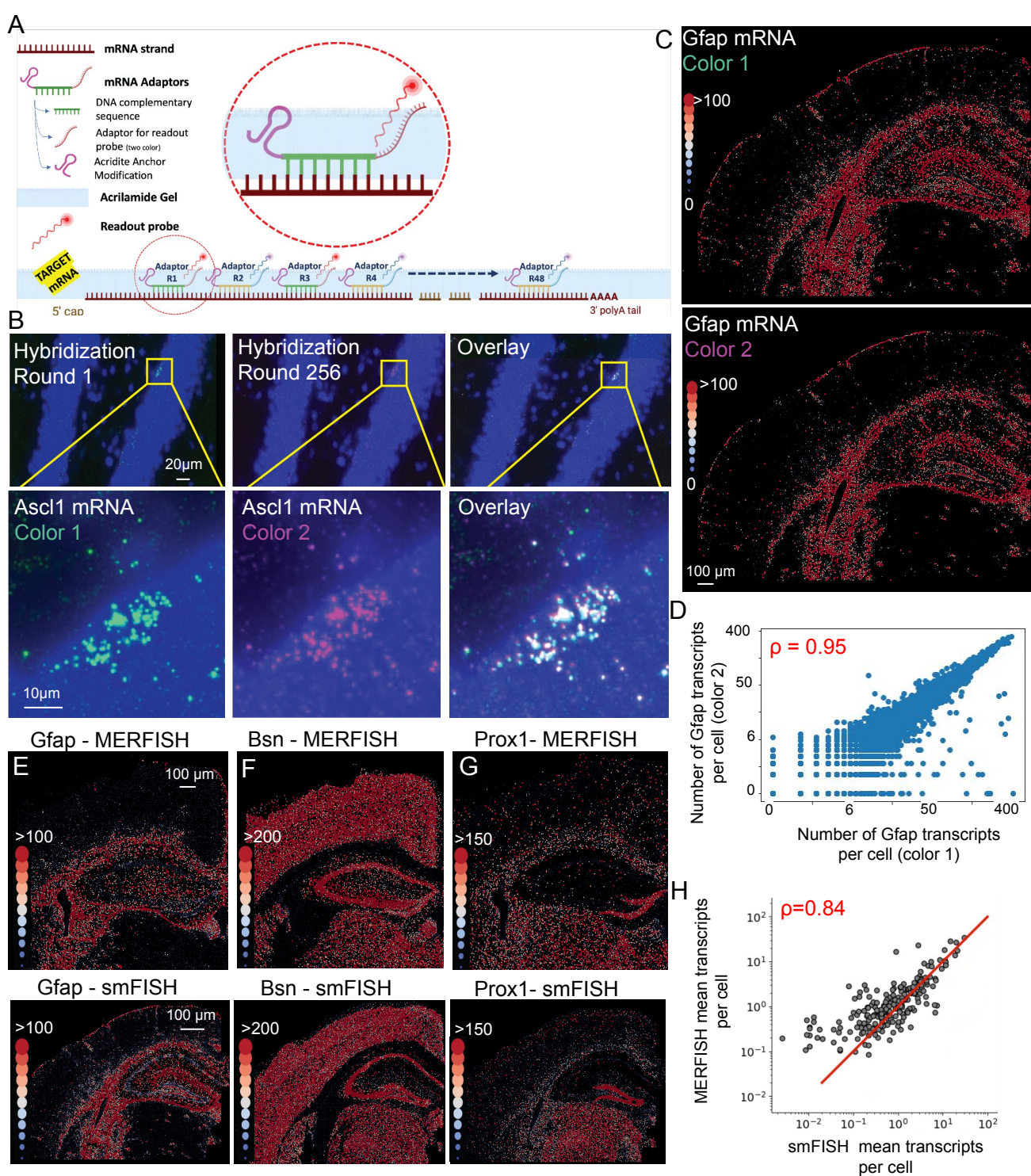
Single-nuc RNA seq performed by Allen
Brain Consortium (~1M cells)



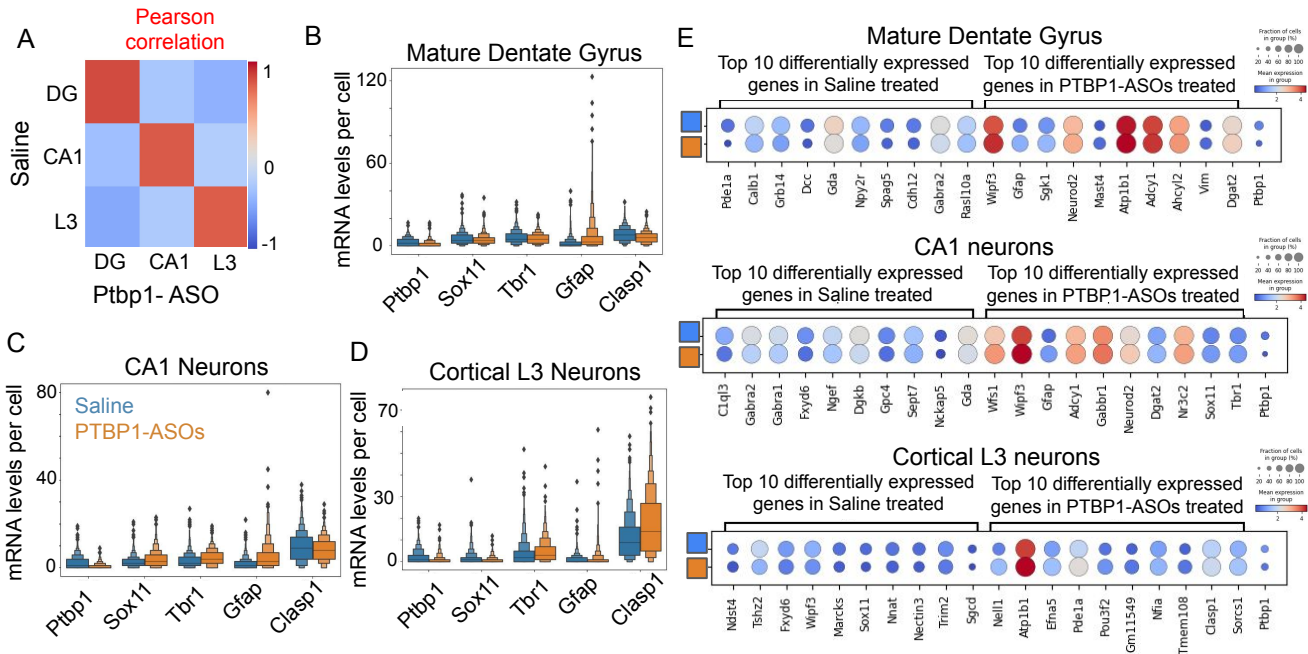
Additional Genes:
Actb,Actg1,Adarb2,Bhlhe22,Calb2,Cck,Cdk1,Cdk4,Cnr1,Cox6a1,Cst3,Elavl2,Emx1,Emx2,Erbb4,Etv4,Fam210b,Foxg1,Frmd4a,Fxyd7,
Gal,Gm10076,Grin2c,H2afz,Hopx,Htra1,Igfbp1,Insm1,Kcng4,Lockd,Lpar1,Lrrtm4,Mbp,Mt2,Mxd3,Nrg3,Nrgn,Opcml,Padi2,Prom1,Pvalb,
,Rhcg,Riiad1,Rpl38,Sall3,Slc17a6,Sox4,Spink8,Sst,Tac2,Tenm2,Tfap2c,Thrsp,Tmsb10,Tpt1,Vnn1,Wnt8b,Zbtb20



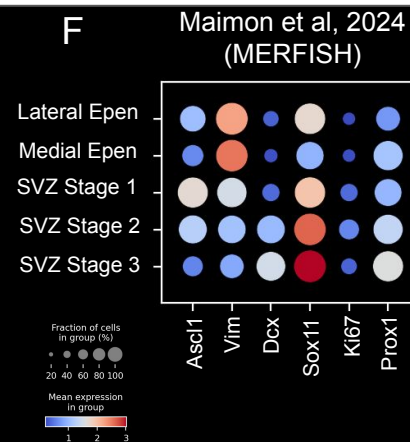
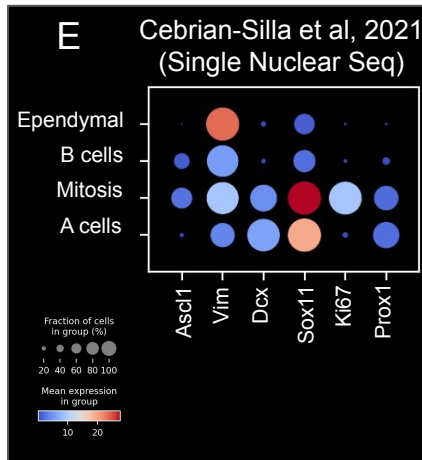
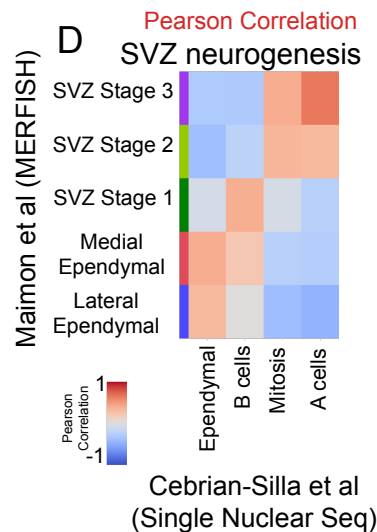
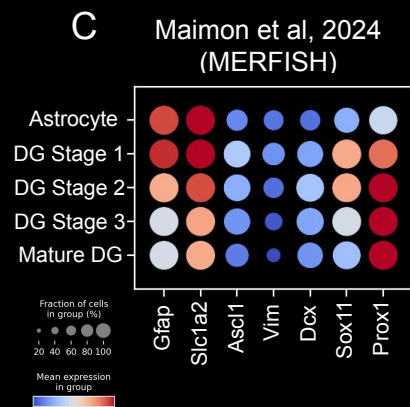
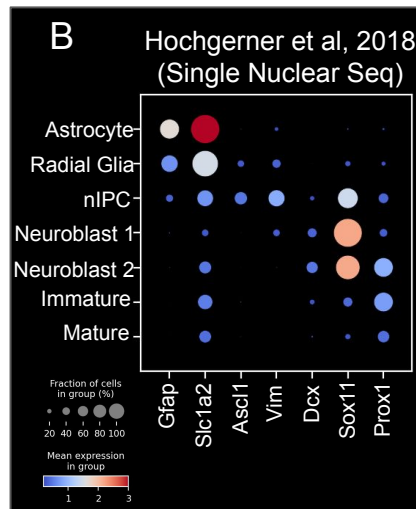
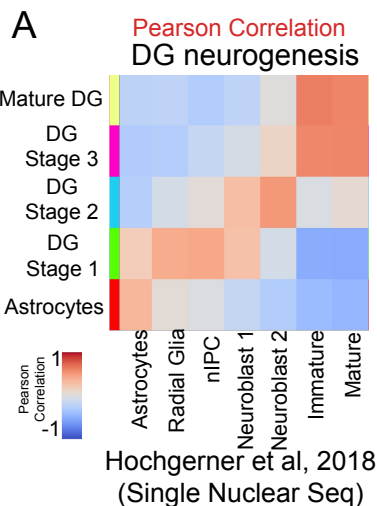
Maimon et al, Supplementary Figure 2 - Comparing cell type definition and gene expression between single-nucleus RNA sequencing and MERFISH data

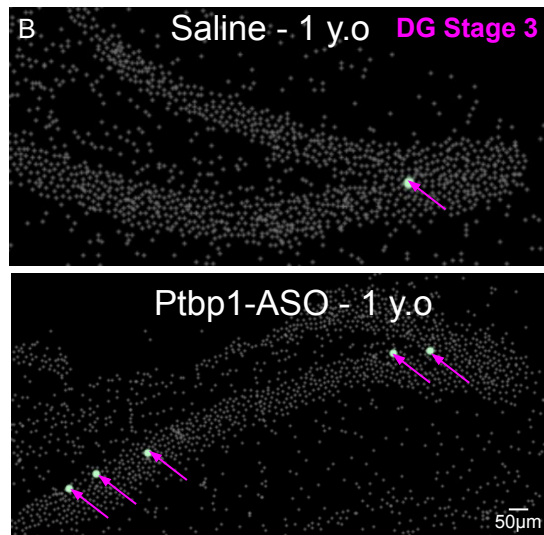
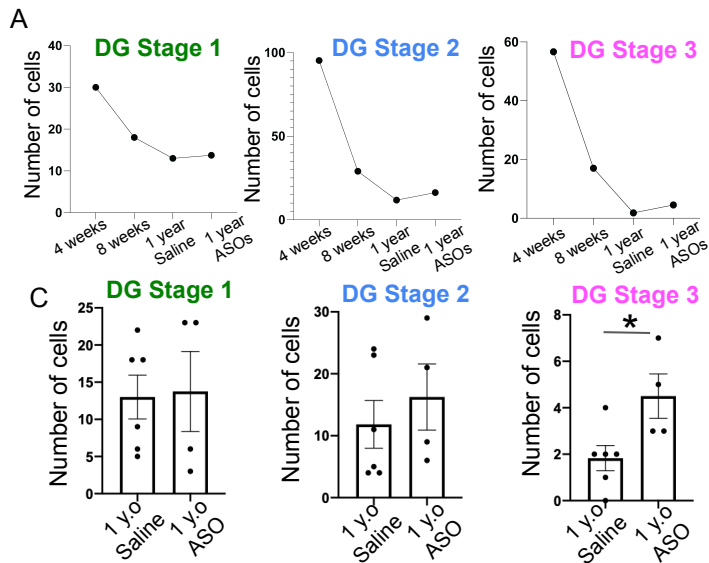


Maimon et al, Supplementary Figure 3: MERFISH validation with serial smFISH

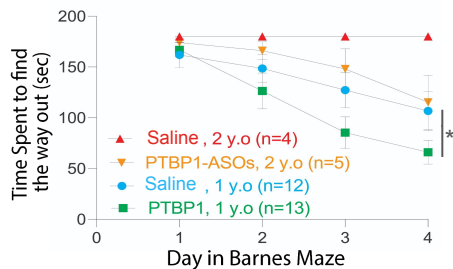


Maimon et al, Supplementary Figure 4: PTBP1 suppression in neurons has minimal effect on gene expression

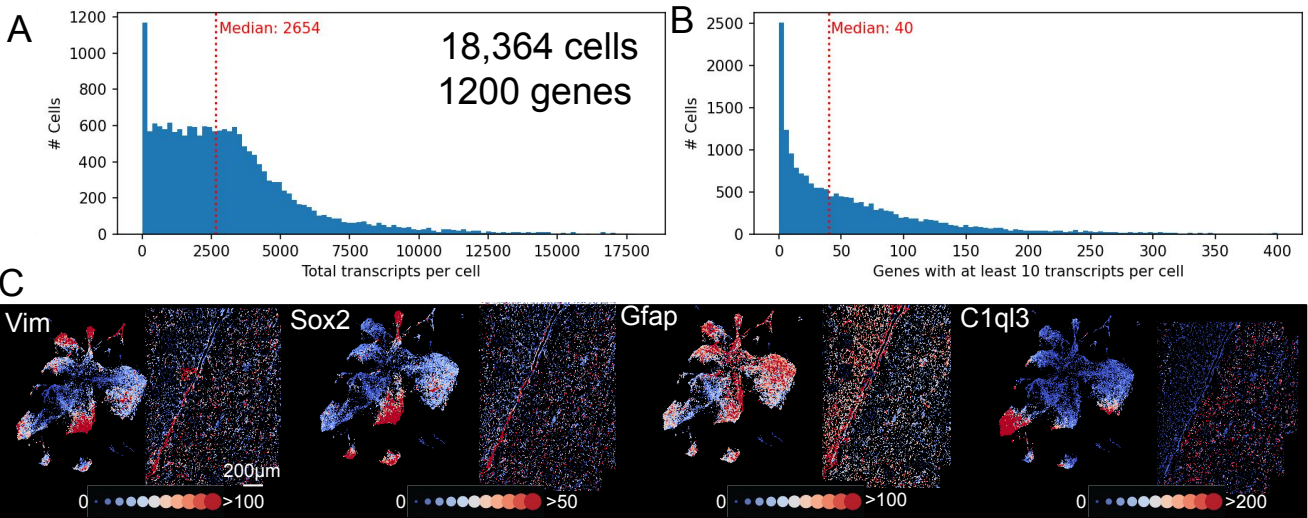




D Barnes maze memory test



Maimon et al, Supplementary Figure 6: PTBP1-ASOs Intra-cerebro-ventricular delivery mediate generation of DG Stage 3 cells along the aged dentate gyrus and improves memory.



Maimon et al, Supplementary Figure 7: Human MERFISH quality control