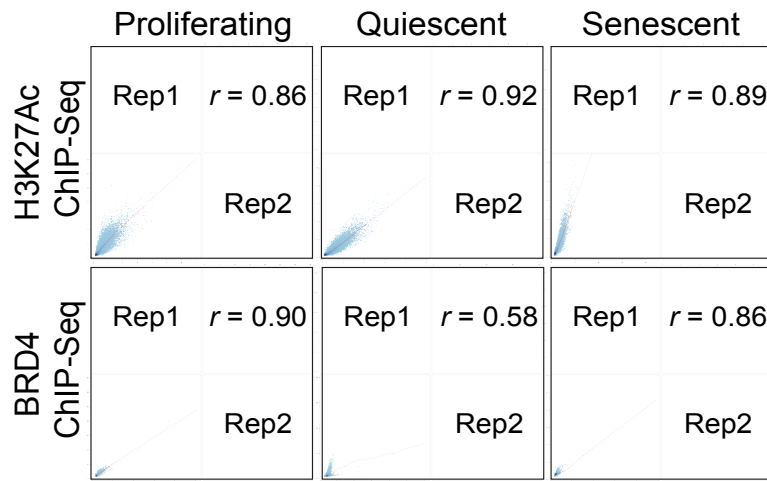
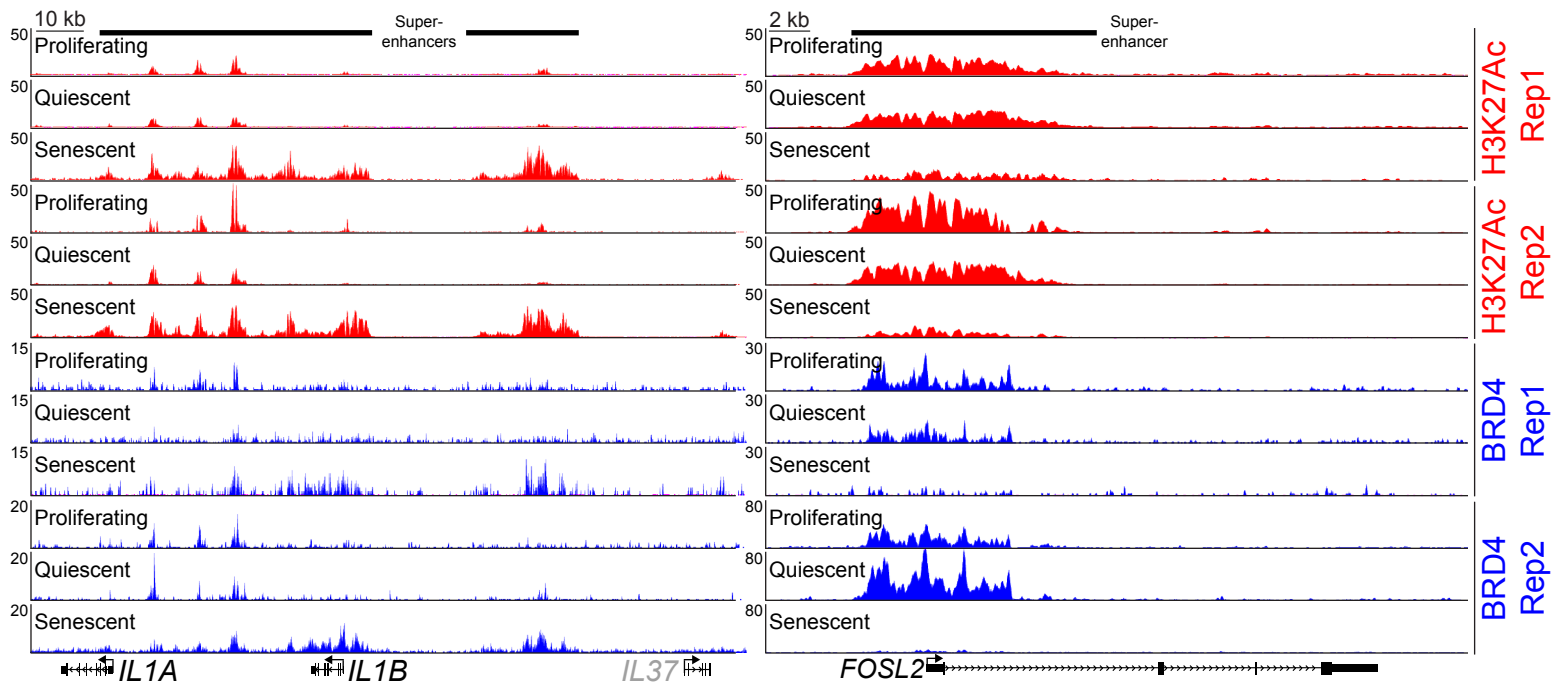


A

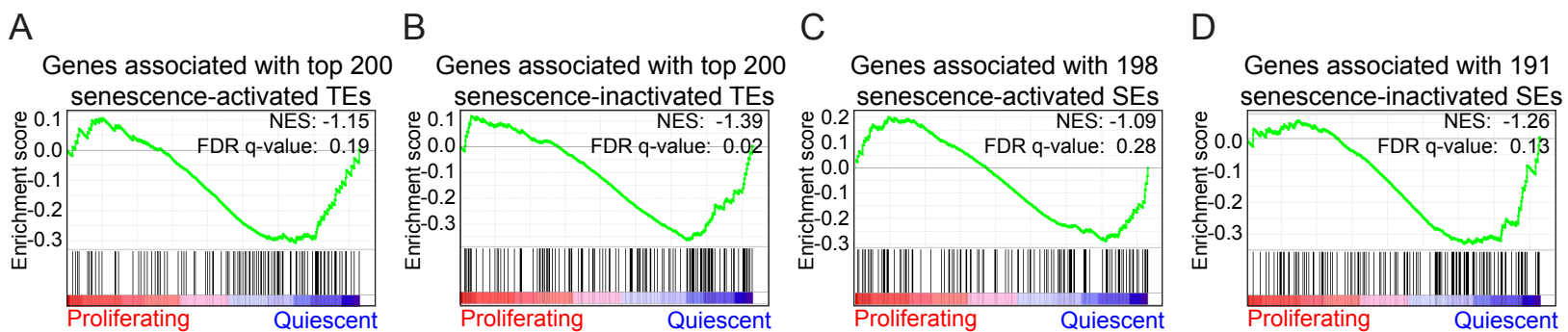


B



C

Samples	Replicates	Raw reads counts	Mapped reads counts	% Mapped reads
H3K27Ac Proliferating	Rep1	132,494,863	109,247,758	82.45 %
H3K27Ac Proliferating	Rep2	32,276,586	26,594,147	82.39 %
H3K27Ac Quiescent	Rep1	156,675,474	131,943,595	84.21 %
H3K27Ac Quiescent	Rep2	52,104,982	44,817,586	86.01 %
H3K27Ac Senescent	Rep1	71,103,597	53,392,195	75.09 %
H3K27Ac Senescent	Rep2	93,309,321	78,634,297	84.27 %
BRD4 Proliferating	Rep1	101,602,170	69,212,449	68.12 %
BRD4 Proliferating	Rep2	55,420,366	40,124,330	72.40 %
BRD4 Quiescent	Rep1	130,465,727	85,692,248	65.68 %
BRD4 Quiescent	Rep2	35,434,821	27,237,451	76.87 %
BRD4 Senescent	Rep1	107,334,951	66,423,458	61.88 %
BRD4 Senescent	Rep2	80,938,196	58,741,764	72.58 %



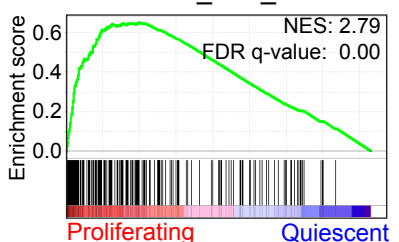
**E Senescence-activated typical enhancers**

Negative regulation of MAPK activity	DUSP4, SPRY2, NF1, SPRED1
TLR1/2/6 signaling pathway	TLR1, TLR2, IRAK2, TAB2
TLR5/10 signaling pathway	TLR5, TLR10, RIPK2, MYD88

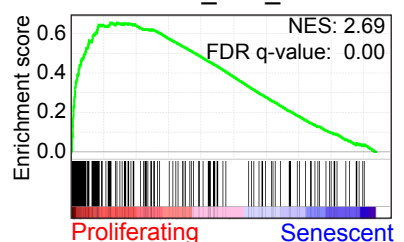
**Senescence-inactivated typical enhancers**

DNA strand elongation/replication	MCM6, POLA1, RPA3, PCNA
Telomere maintenance	RFC3, LIG1, FEN1, PRIM1
Chromosome localization	CENPE, CENPF, KATNB1, CCNB1

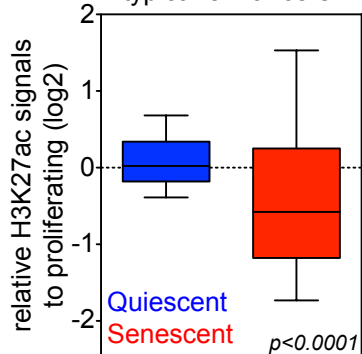
**F HALLMARK\_E2F\_TARGETS**



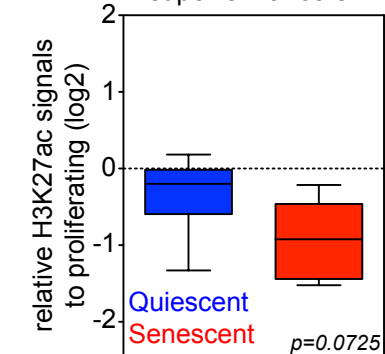
**G HALLMARK\_E2F\_TARGETS**



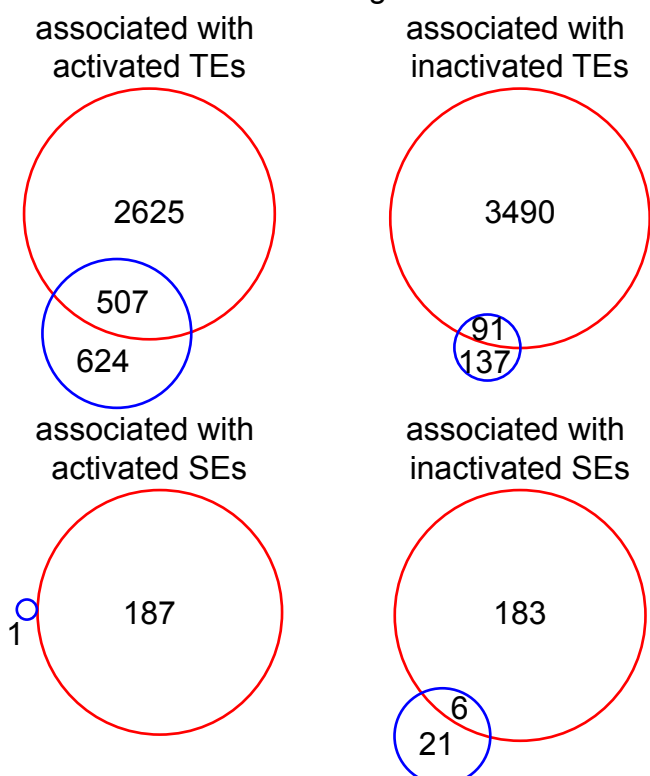
**H E2F targets-associated typical-enhancers**



**I E2F targets-associated super-enhancers**



**J Quiescence vs Senescence associated genes**



**K Senescence-activated super enhancers**

Cytokine activity	IL-1A, IL-1B, IL-8, IFNE, INHBA
Growth factor activity	HGF, EREG, FGF18, FGF20, VEGFC
Receptor binding	AREG, TGBR2, PIK3R1, ERBB4
Cytokine receptor binding	TGFB2, CSF2, BMP2

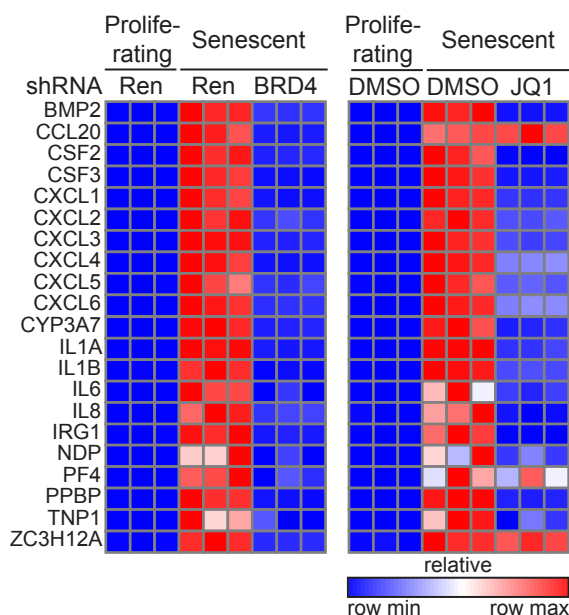
**Senescence-inactivated super enhancers**

Sequence-specific DNA binding TF activity	SDC4, THBS1, CCDC80
Nucleic acid binding TF activity	CRIM1, CTGF
Fibronectin binding	IGF1R, TGFBR1

A

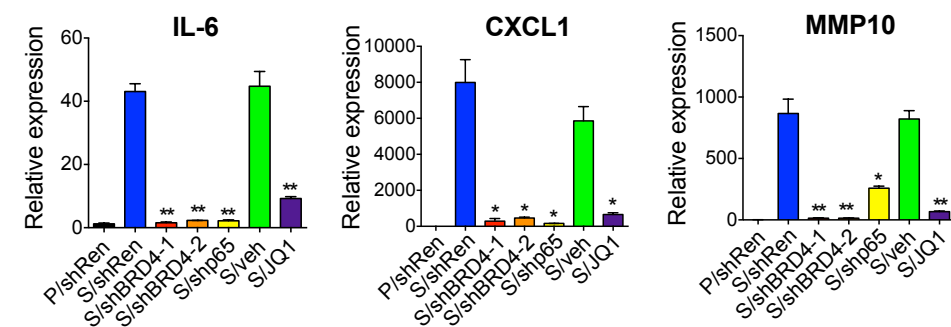
BRD4 signature genes	
Inflammatory response	IL-1A, IL-1B, IL-6, IL-8, CXCL1, CSF2
TNFA signaling via NF- $\kappa$ B	VEGFA, AREG, INHBA, SERPINB2, BMP2
H-RAS oncogenic signature	DUSP4, FLRT3, LYN, EREG, TGFA, CCL20

B



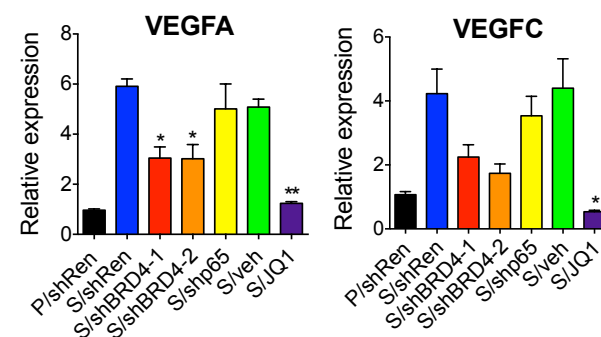
C

BRD4 and p65 commonly regulated genes



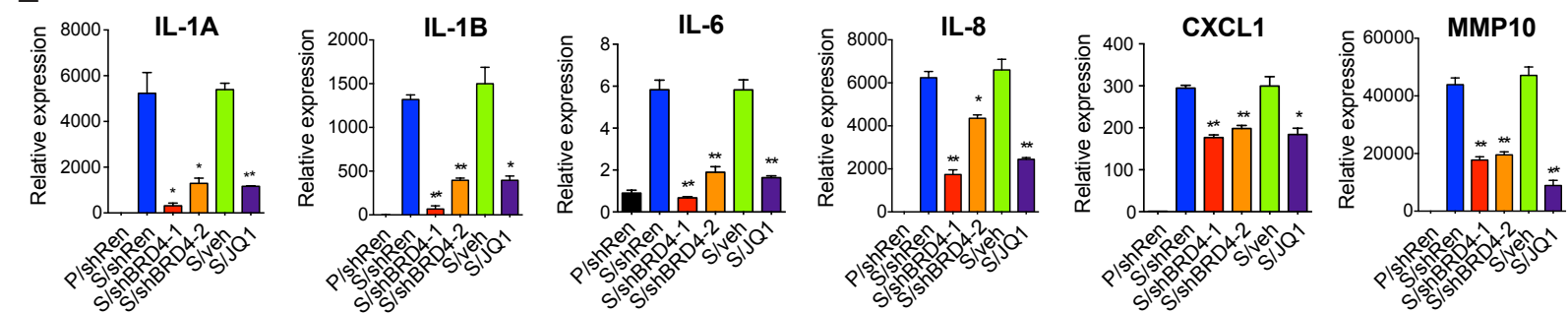
D

BRD4 uniquely regulated genes



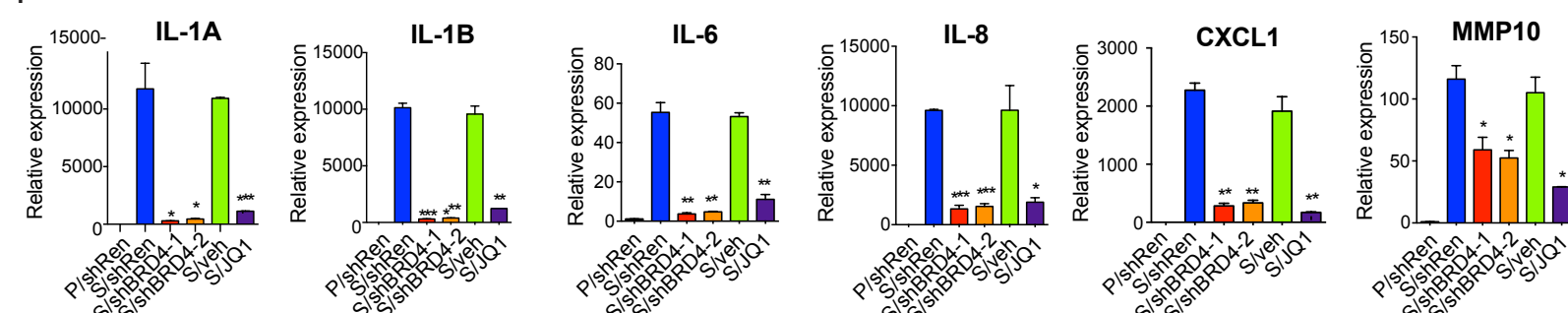
E

BJ Ras

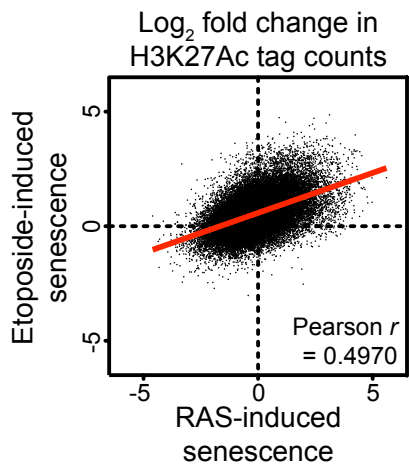


F

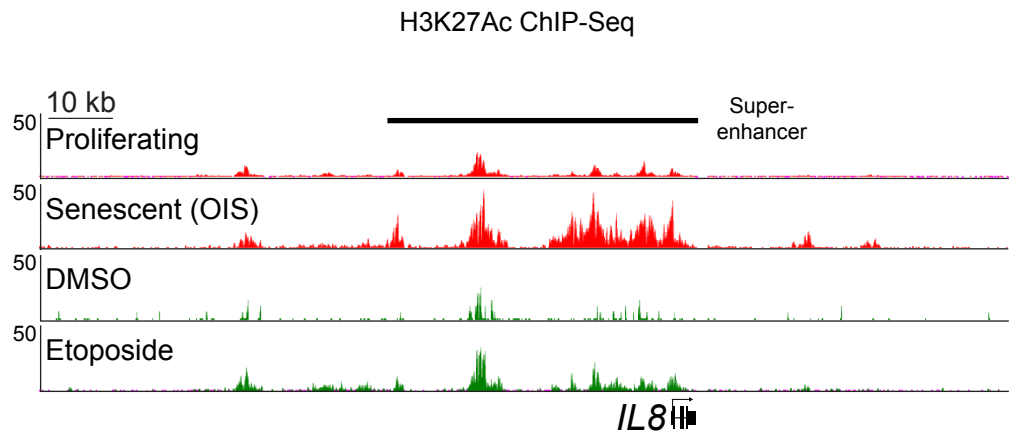
W138 Ras



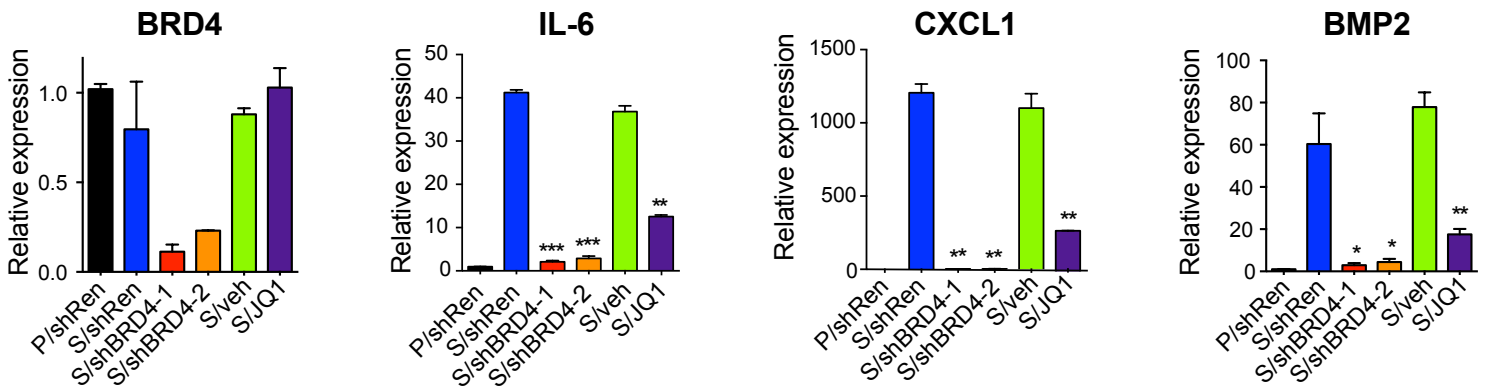
A



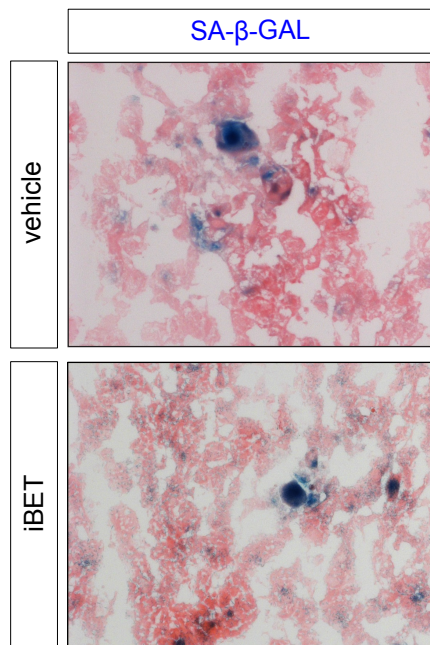
B



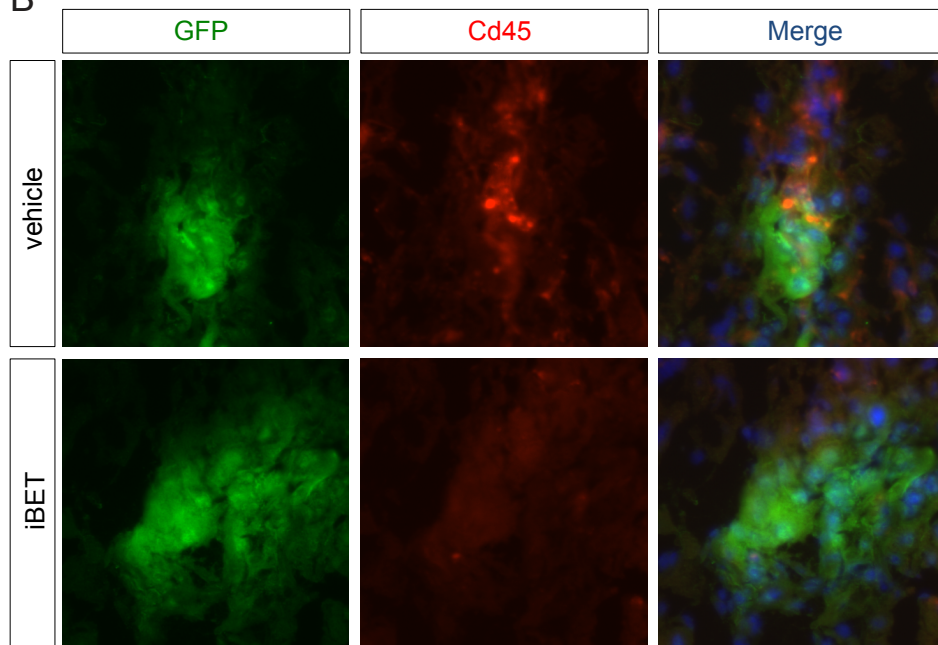
C



A



B



C

