
emVE and exVE

Note: 6339 emVE cells and 19584 exVE cells

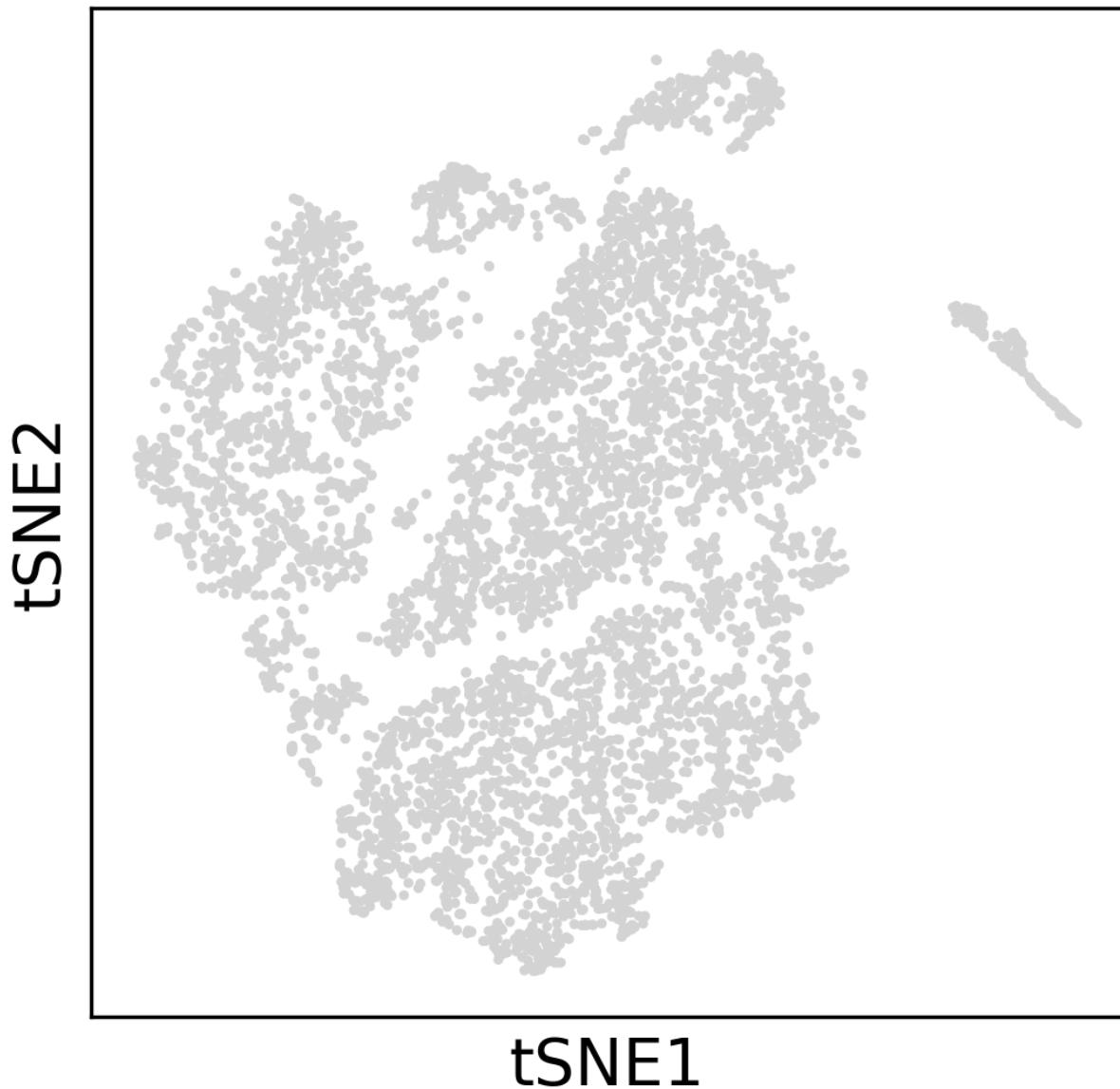


Figure 1: Embryonic visceral (emVE) endoderm cells tSNE plot categorized by time point, cluster, and cell type

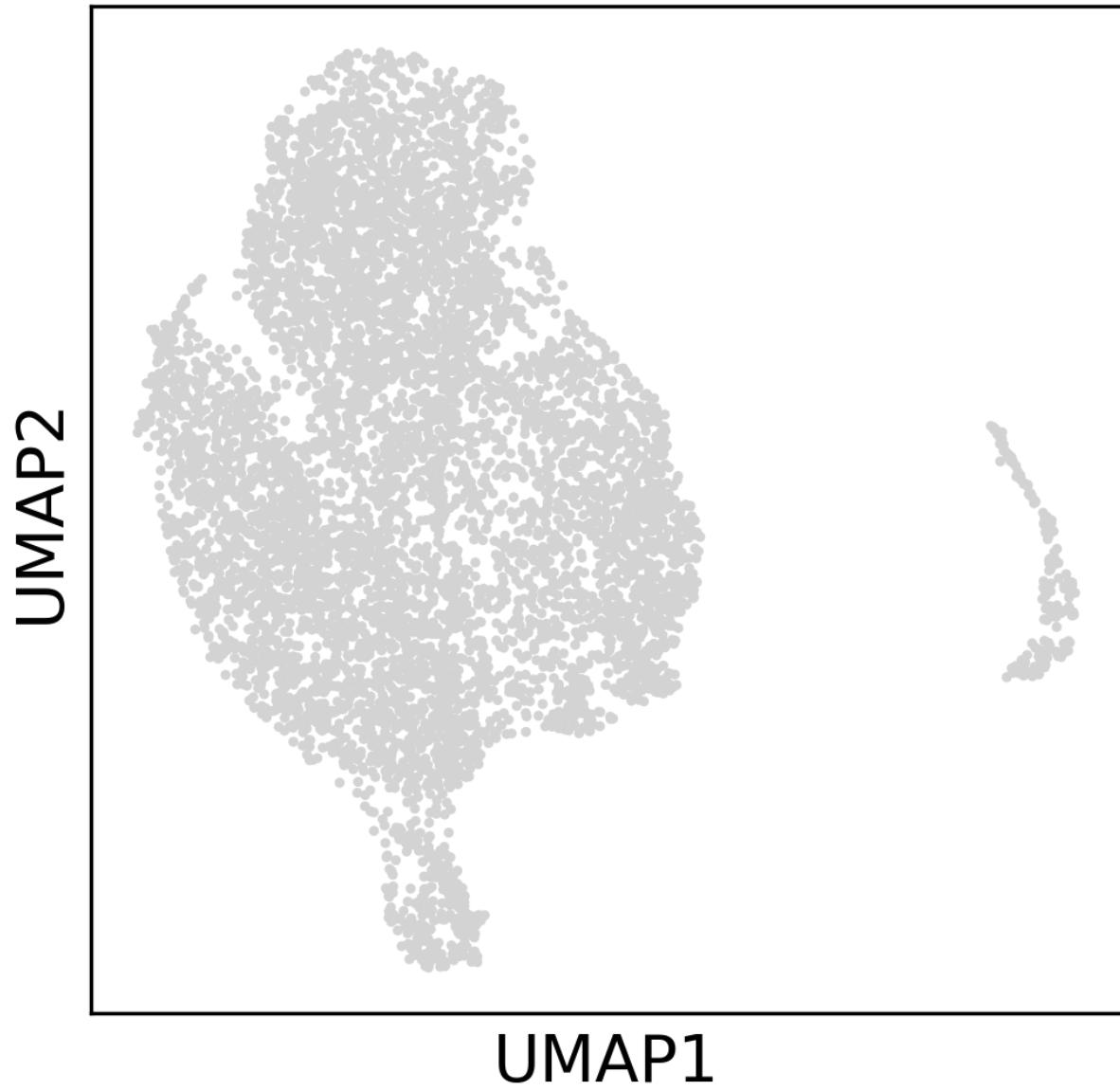


Figure 2: UMAP for emVE

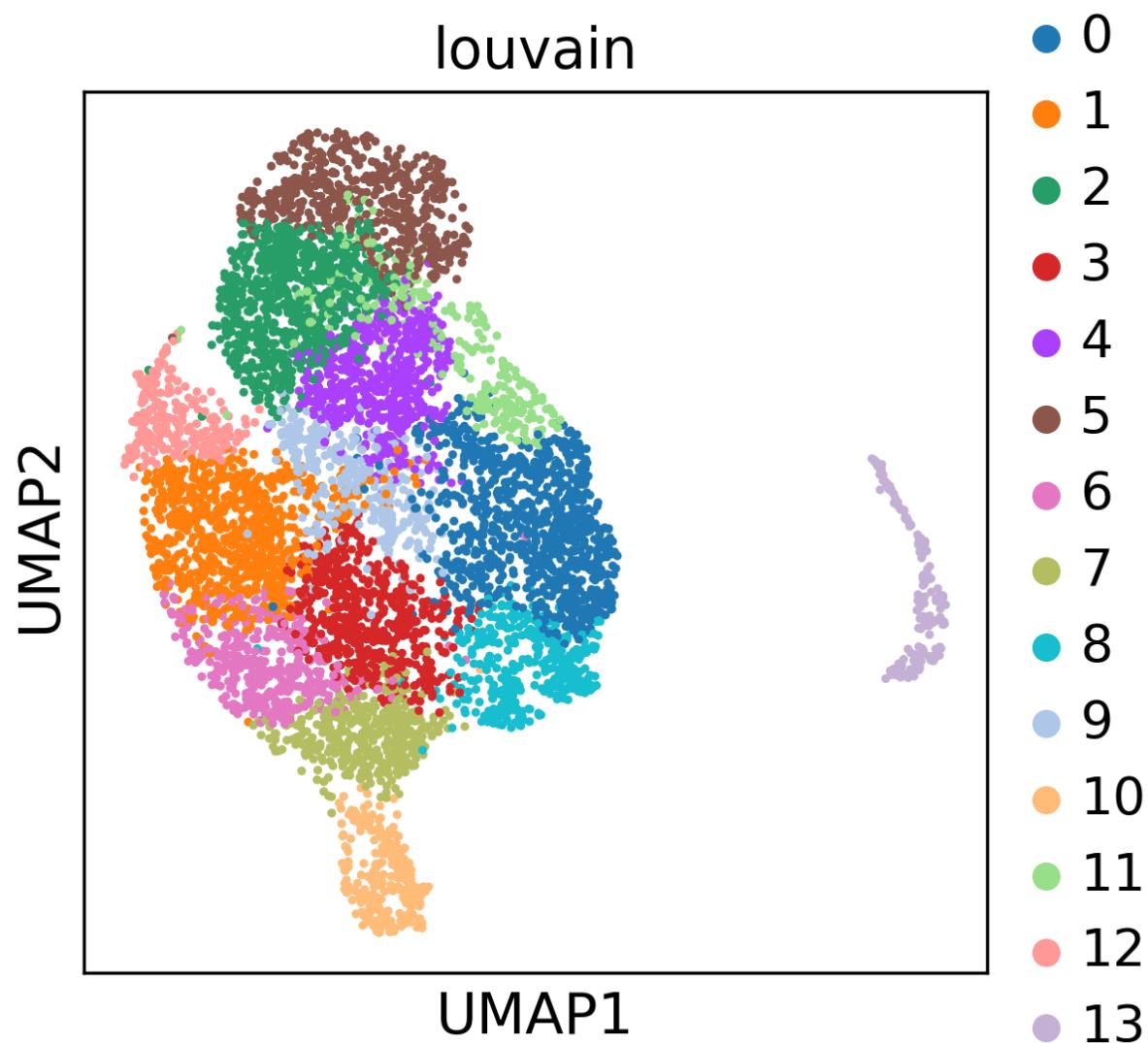


Figure 3: UMAP embedding with Louvain clustering

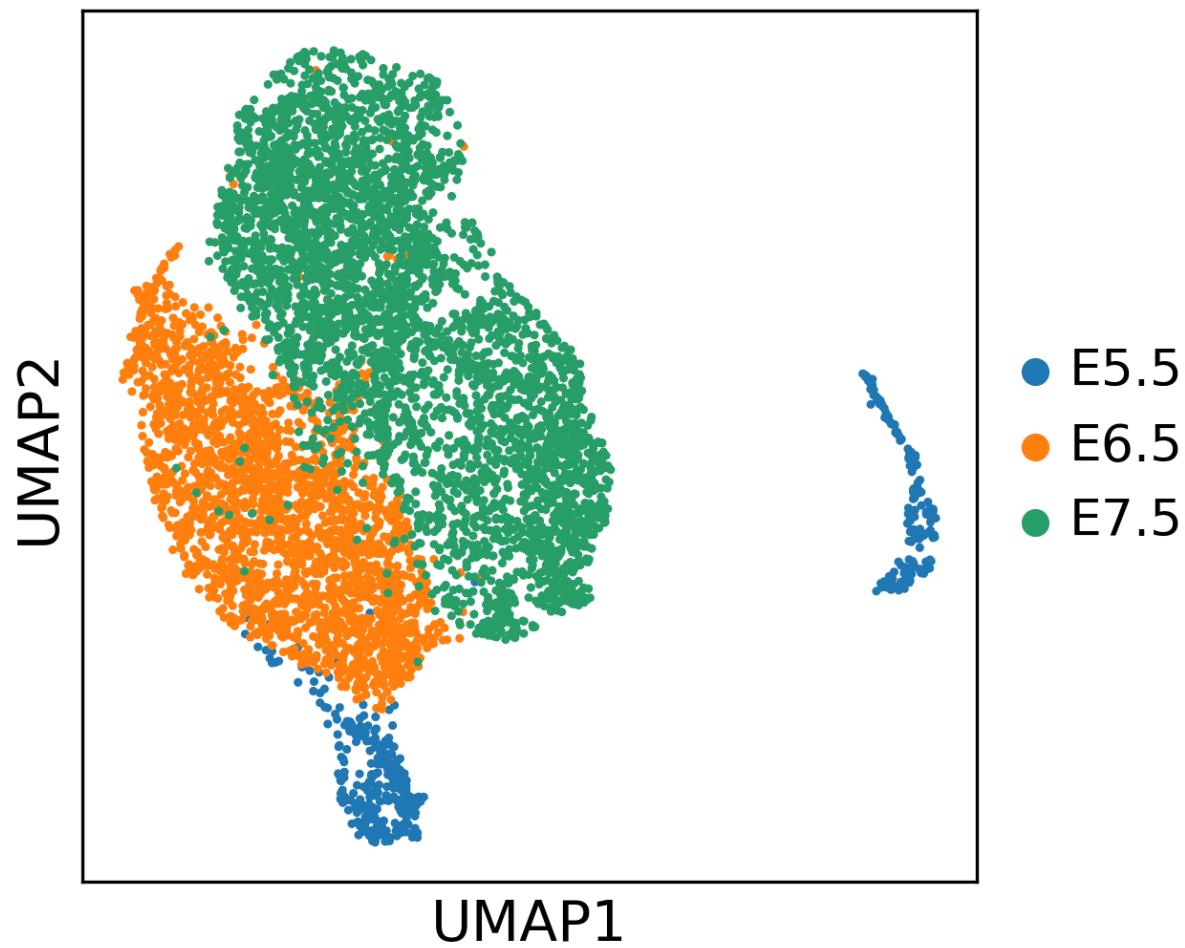


Figure 4: emVE UMAP embedding with timepoint

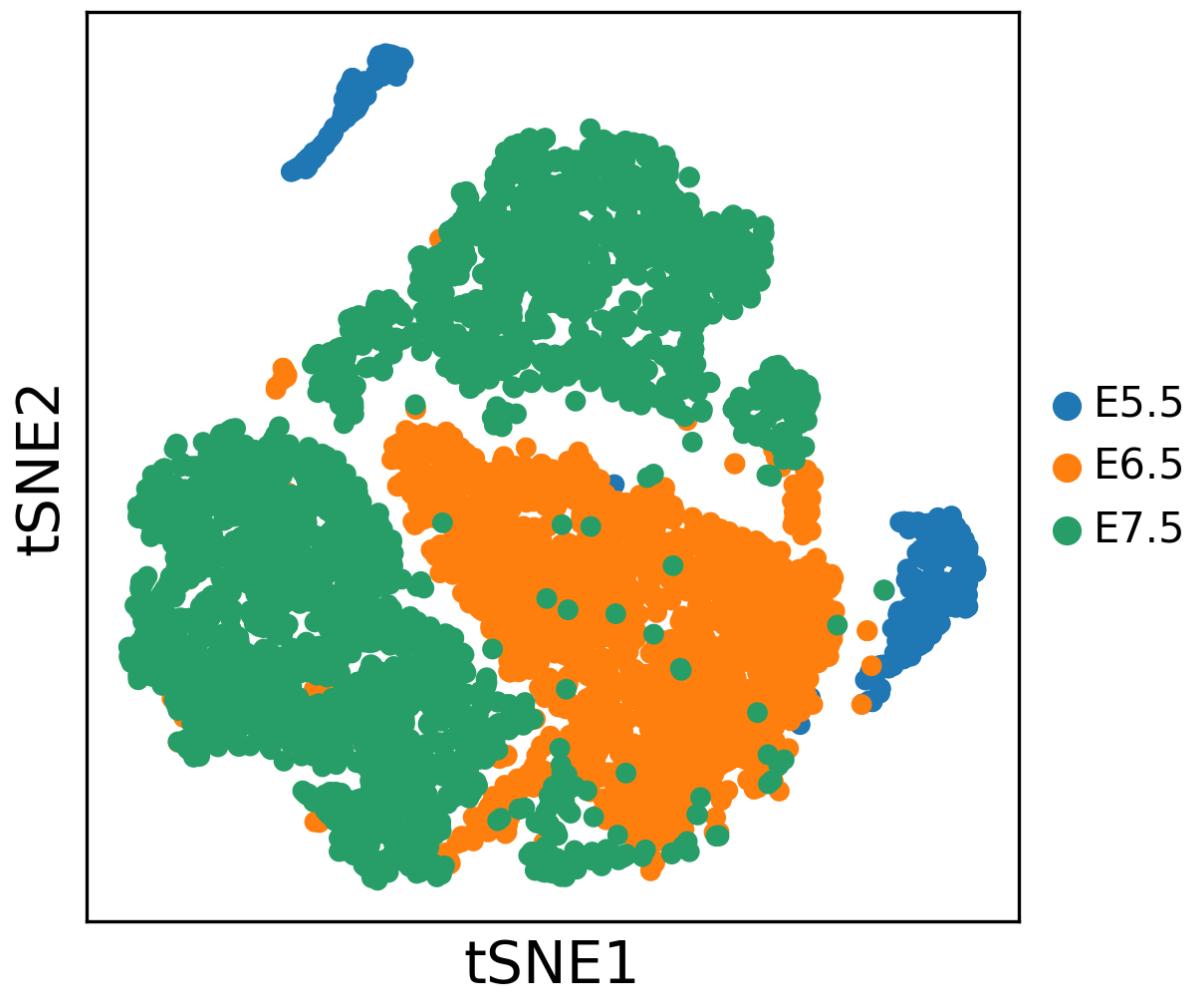


Figure 5: emVE tSNE visualization colored by time points

		E5.5	E6.5	E7.5
0	Dppa5a		Gstp1	Eef1a1
1	Irs4		Taf10	mt-Atp6
2	Aplp2		Gm10020	Krt18
3	Eomes		Gm10076	mt-Co3
4	Scd2		Slc25a33	mt-Cytb
5	Foxq1		Cyp26a1	mt-Nd4
6	Sfrp1		Fgf5	Bex1
7	Fzd5		Erh	Slc2a1
8	Fgf5		Gclm	Bsg
9	Cdh2		Gm10131	Emb
10	Lrp2		Mixl1	Selenop
11	Gm10837		Eomes	Wbp5
12	Sox3		Pgk1	Cox7a2l
13	Atp8a1		Gm8186	H3f3a
14	Ntn1		Timm8a1	mt-Nd2
15	Dppa3		Fgf8	mt-Co2
16	Gm42418		Nodal	Cldn6
17	Nid1		Zbed5	Gm11808
18	Pmepa1	1810009A15Rik		Rpl14
19	Cyp26a1		Rpl29	Krt8

Figure 6: Table showing ranked expression of top 20 genes in emVE cells, where the columns are organized by time point. The top row represents the highest ranked gene.

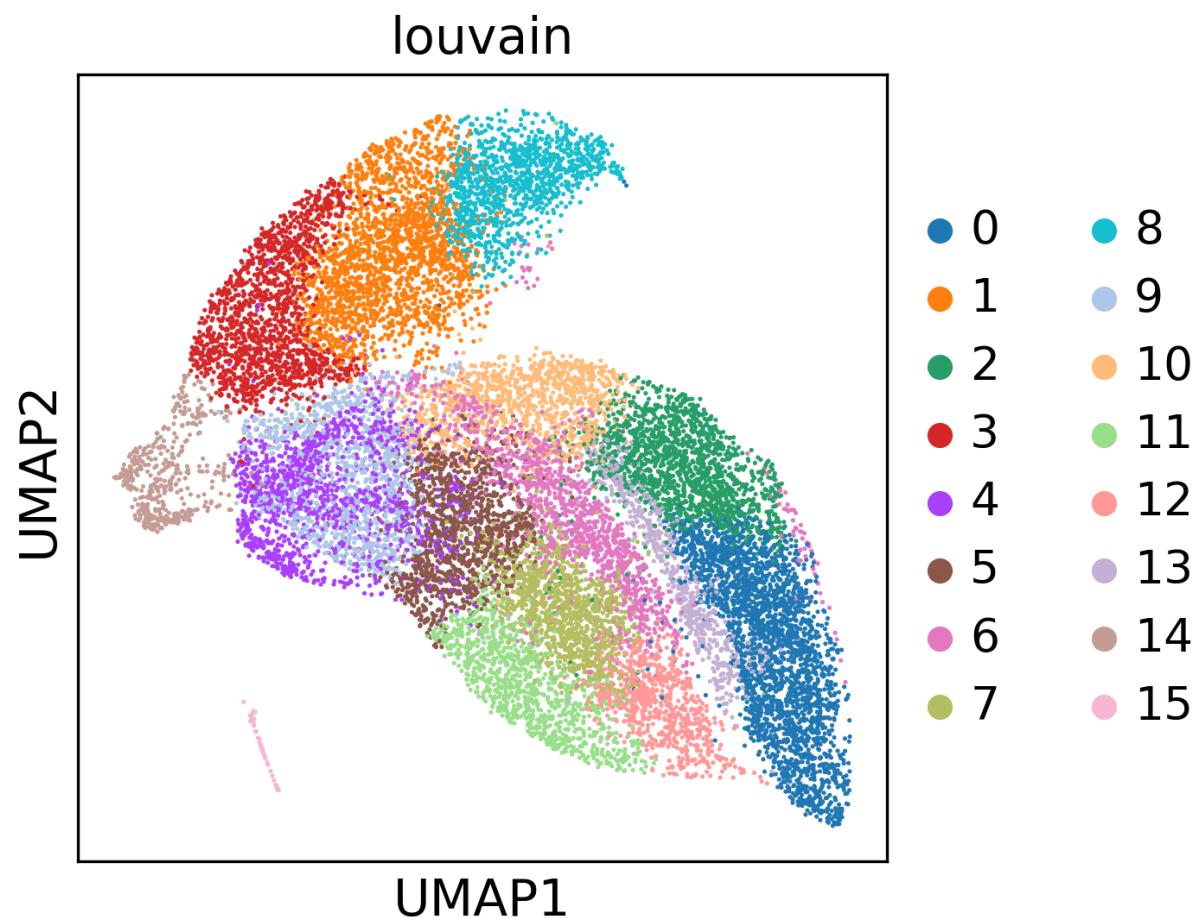


Figure 7: UMAP embedding Louvain clustering with exVE cells

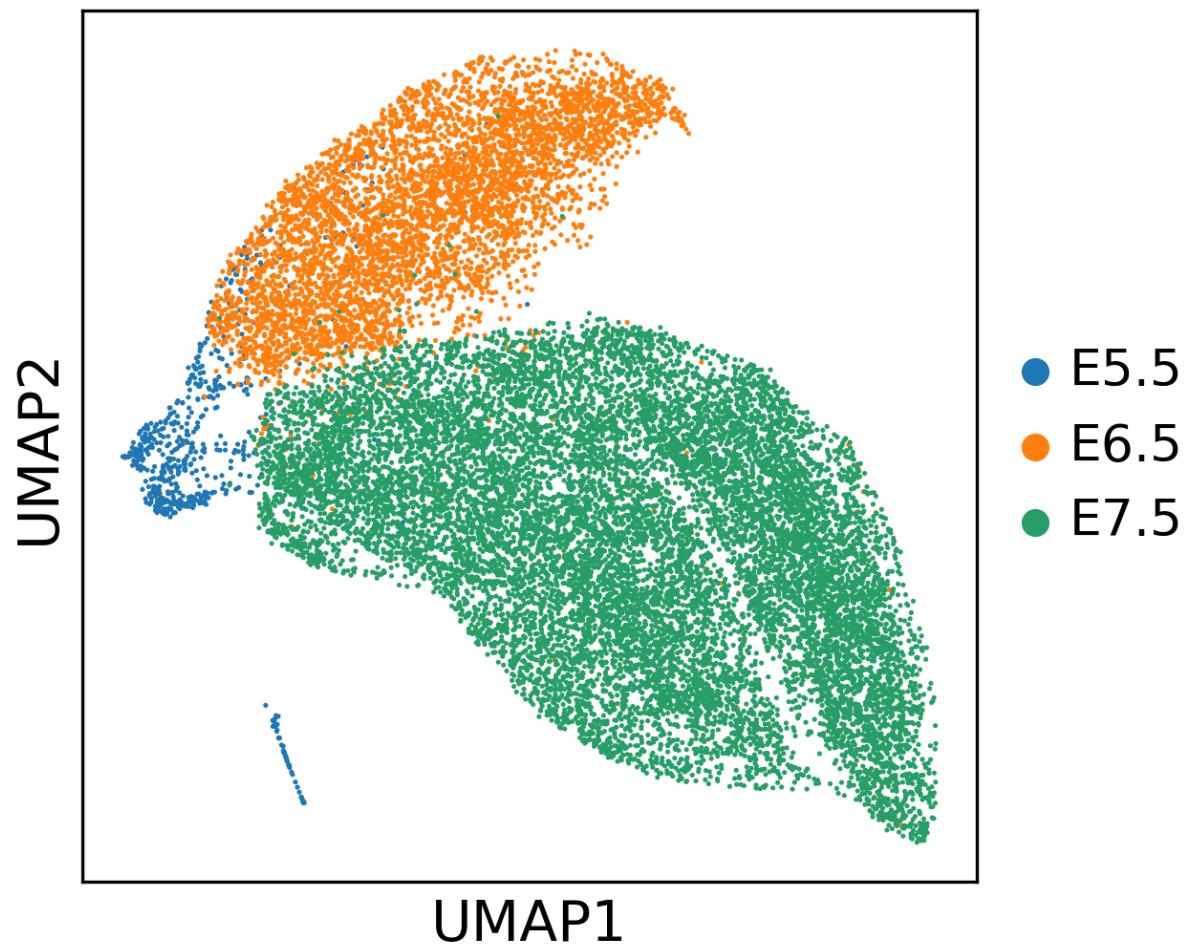


Figure 8: UMAP embedding with timepoint, exVE cells

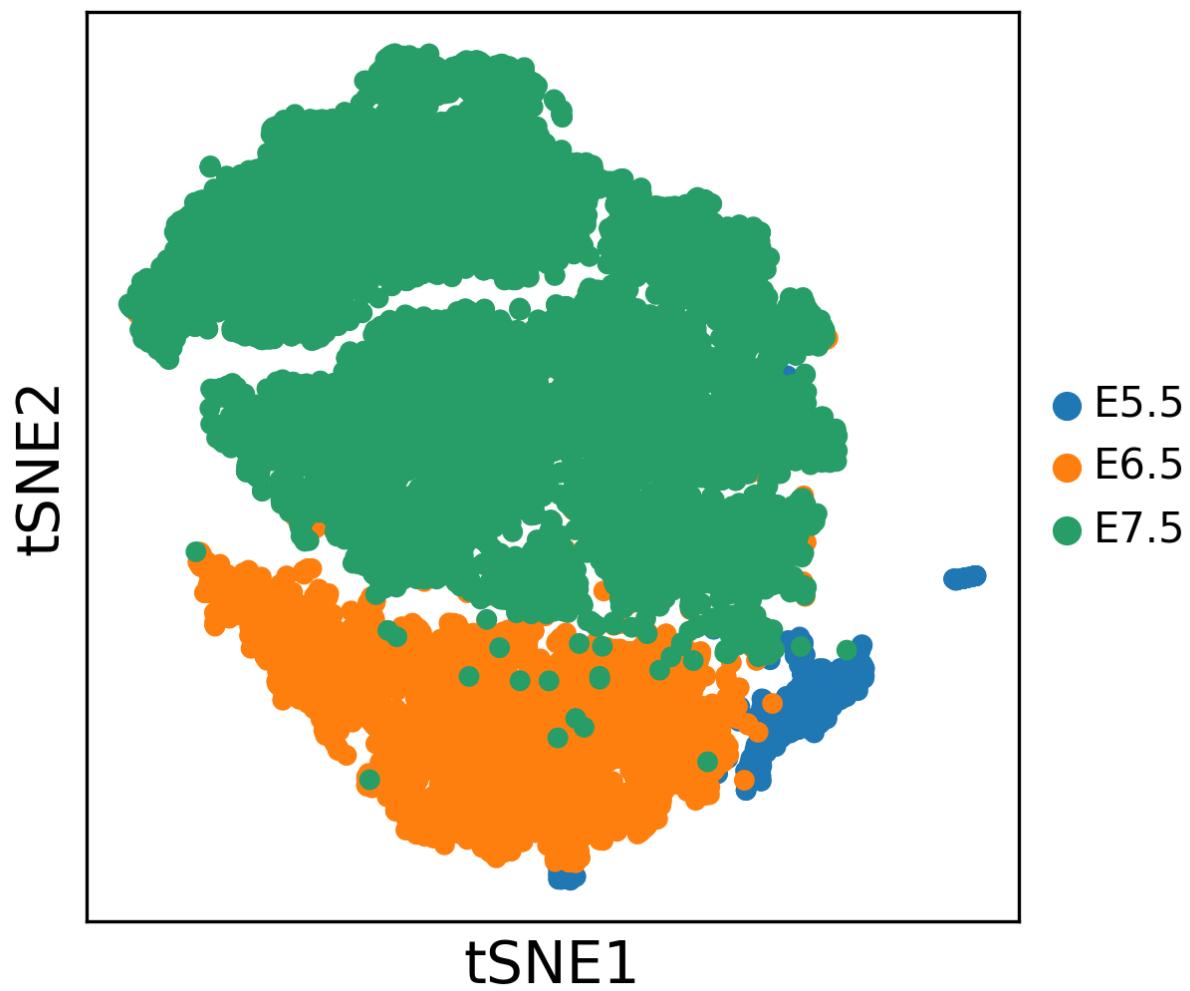


Figure 9: exVE tSNE visualization colored by time point

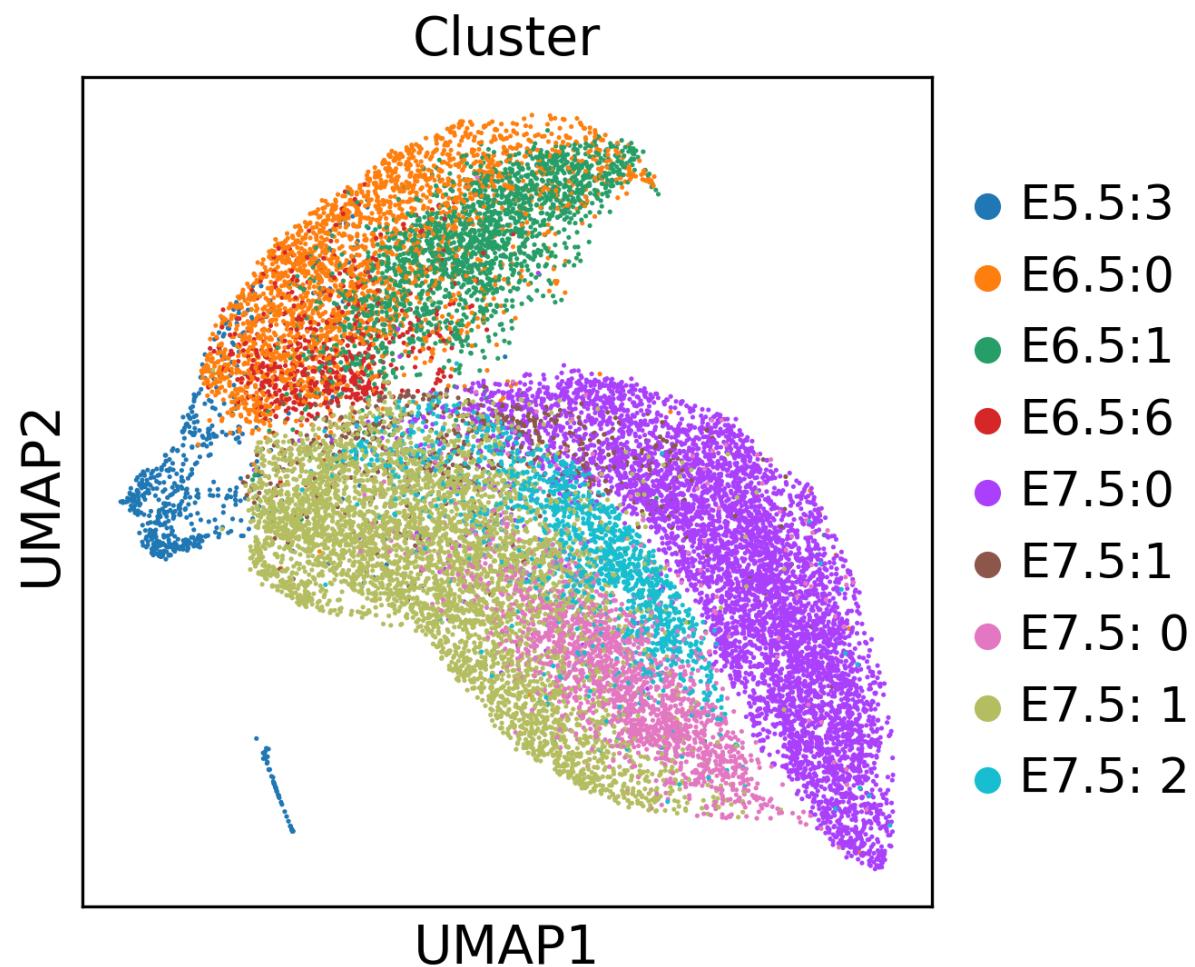


Figure 10: UMAP embedding by clusters, exVE cells

	E5.5	E6.5	E7.5
0	Dppa5a	Gm10076	mt-Nd4
1	Scd2	Pgk1	mt-Atp6
2	Srgn	Gm10020	mt-Cytb
3	Ldlr	Taf10	mt-Nd2
4	Gm10837	Gm8186	mt-Co3
5	Pou5f1	Gm10131	mt-Co2
6	Lrp2	Timm8a1	Apob
7	Zic3	Gclm	Rps3a1
8	Insig1	Pgk1-rs7	Wdr89
9	Fgf5	Tmem238	Emb
10	Has2	Gm10269	Rdx
11	Foxq1	Gstp1	Rpl23a-ps3
12	Pmepa1	Bloc1s1	Degs1
13	Cdh2	Zbed5	Hspa5
14	Utf1	1810009A15Rik	Slc2a3
15	Sqle	Dynlt1a	Slc13a4
16	Eomes	Aqp8	Eef1a1
17	Fads1	Gm4737	Calr
18	Irs4	Platr15	mt-Nd1
19	Dnmt3b	Chic2	Atp5b

Figure 11: Table showing ranked expression of top 20 genes in exVE cells, where the columns are organized by time point. The top row represents the highest ranked gene.

TIMEPOINT DATA:

The number of cells at each timepoint:

E8.75_ap: 5423

E8.75: 42599

E4.5: 232

E3.5: 774

E8.75_gfp: 9379

E5.5: 11550

E6.5: 9244

E7.5: 33850

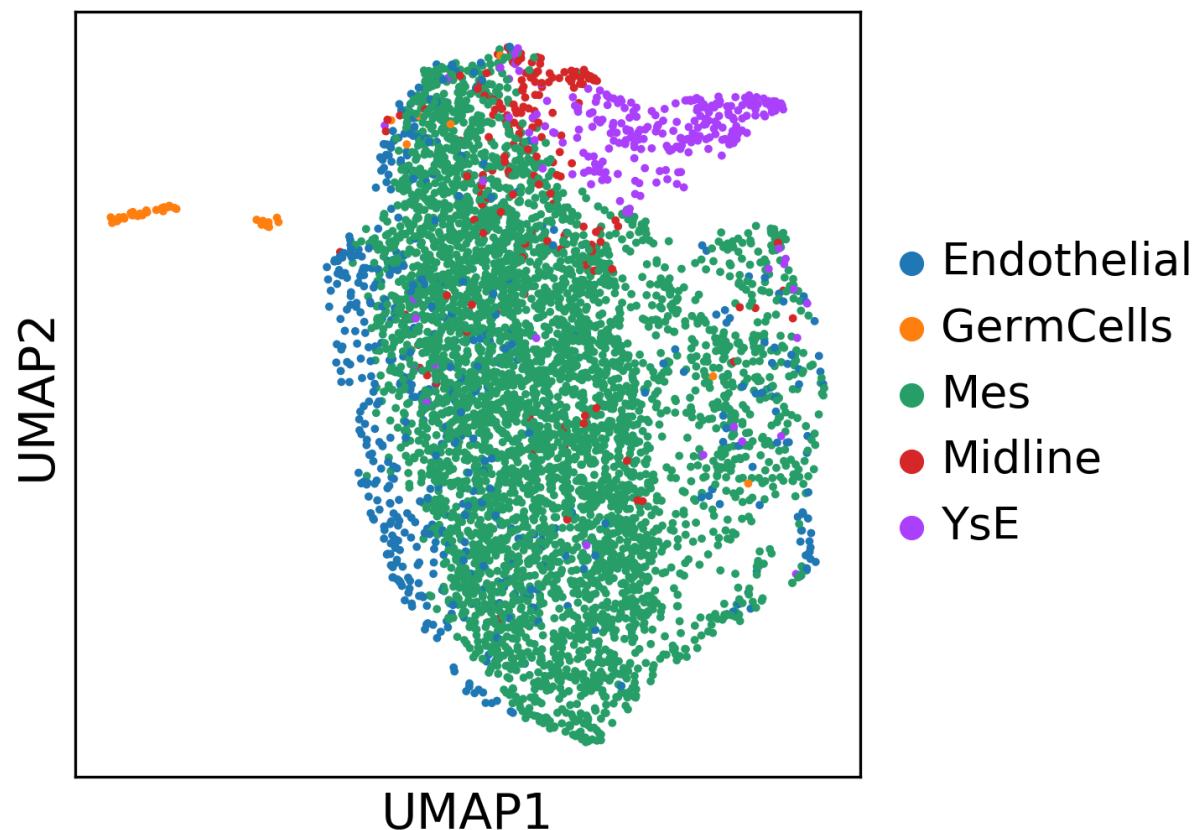


Figure 12: UMAP embedding by cell type, time point E8.75 anterior/posterior gut tube

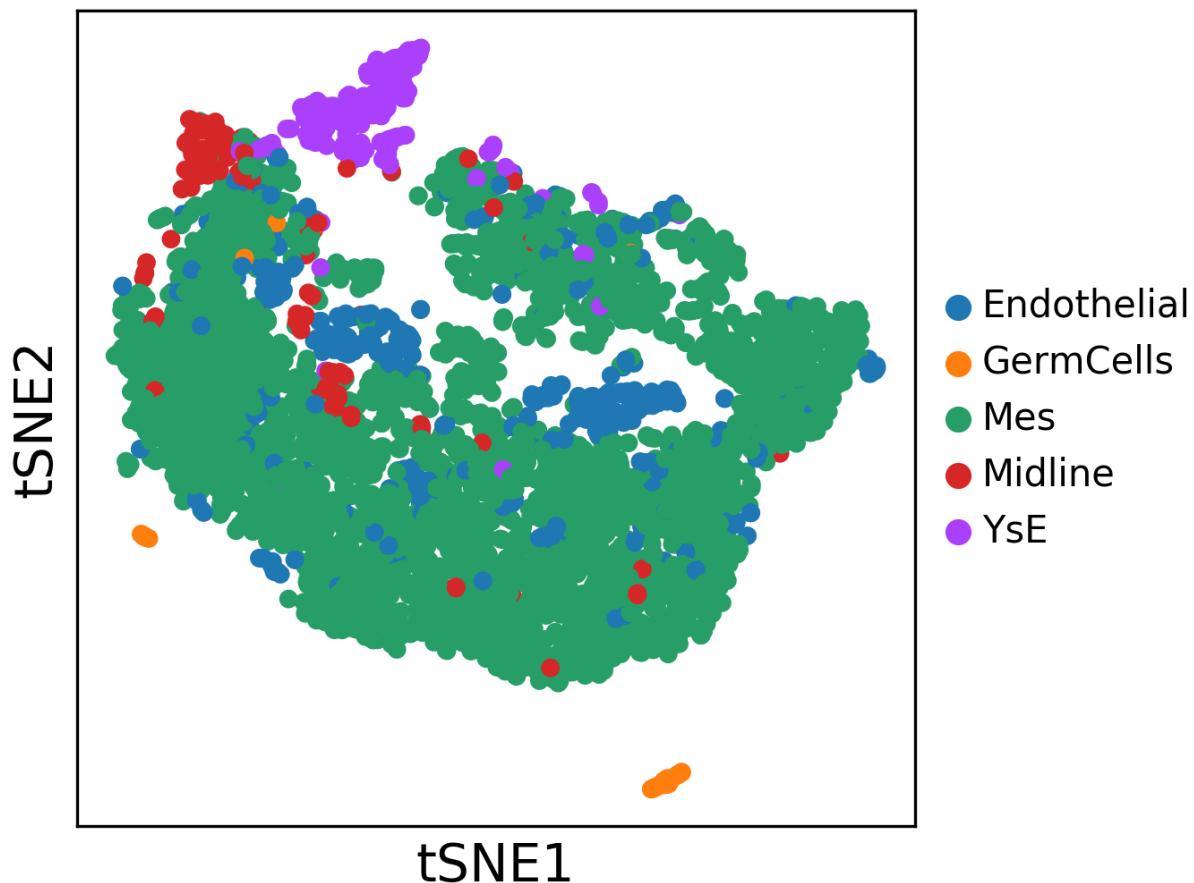


Figure 13: tSNE plot colored by cell type, timepoint E8.75 anterior/posterior

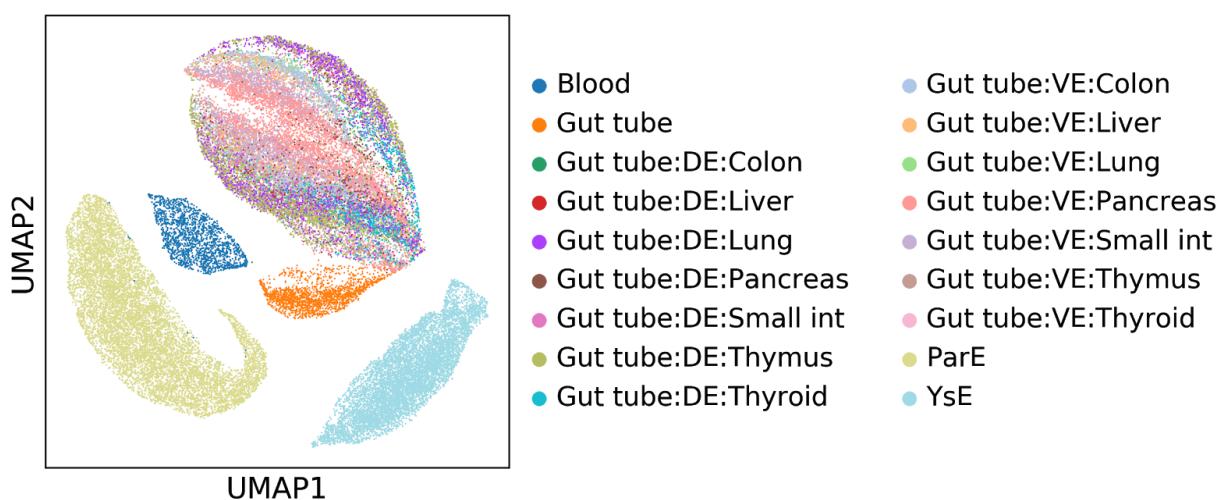


Figure 14: UMAP embedding by cell type, time point E8.75

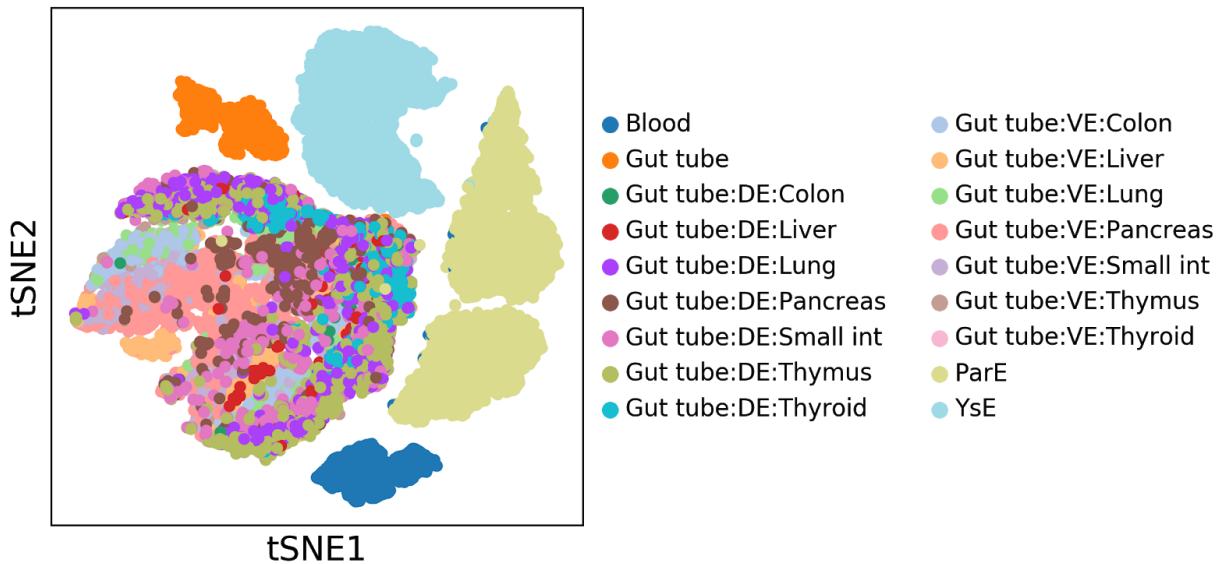


Figure 15: tSNE plot colored by cell type, E8.75

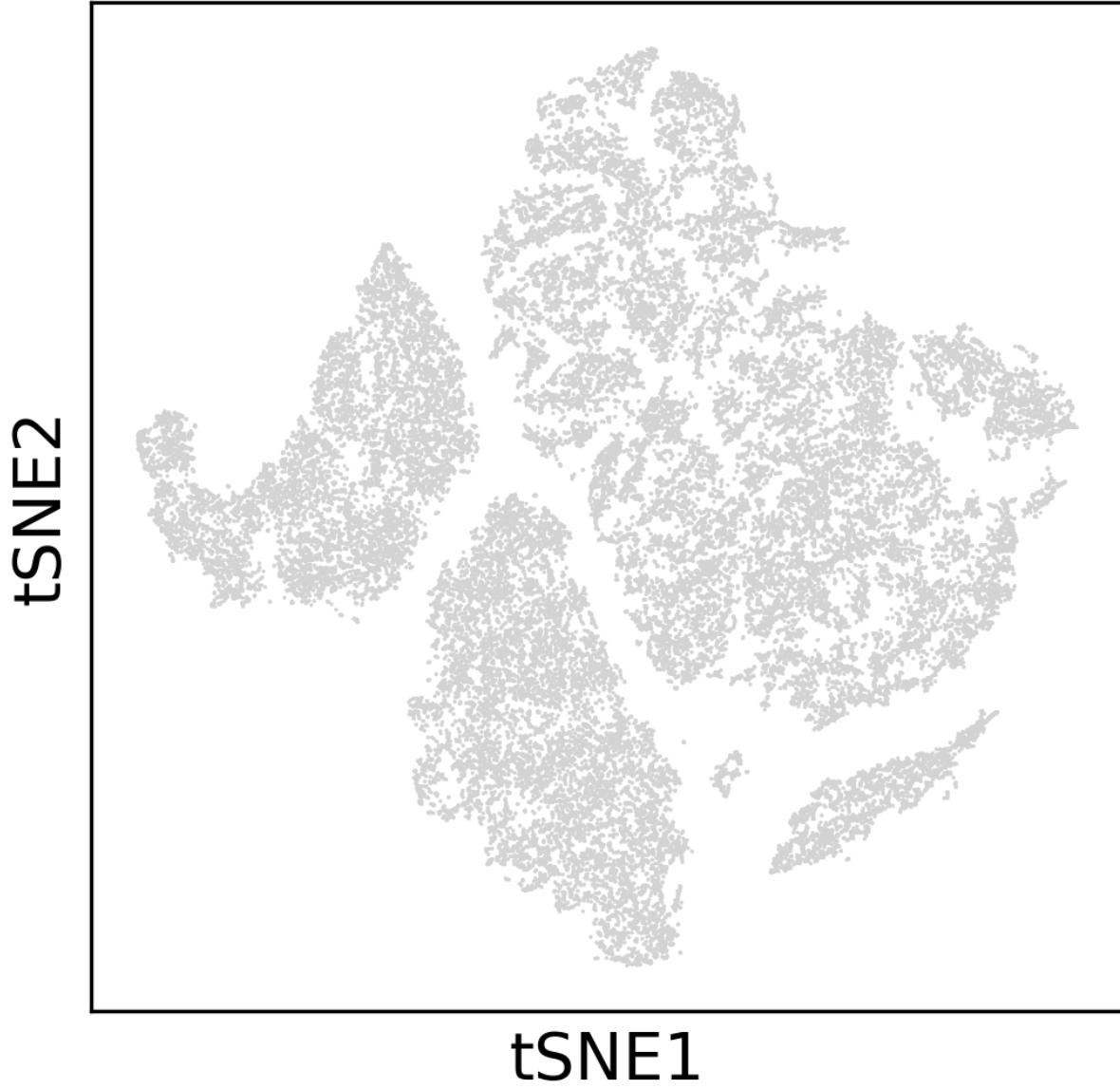


Figure 16: tSNE plot, cells at E8.75 timepoint

Note: Above plot took very long to generate, so we've omitted them for the other time points

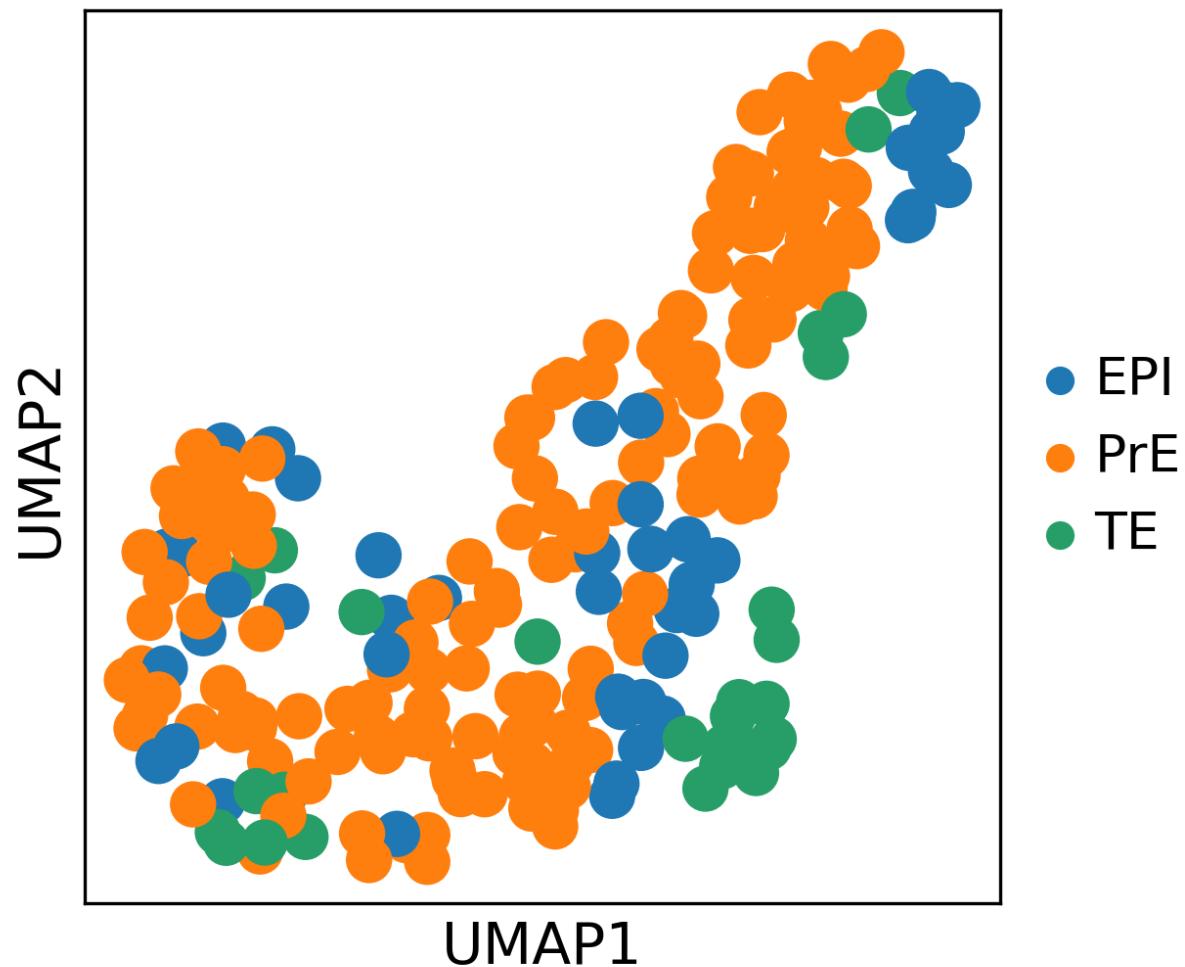


Figure 17: UMAP embedding by cell type, time point E4.5

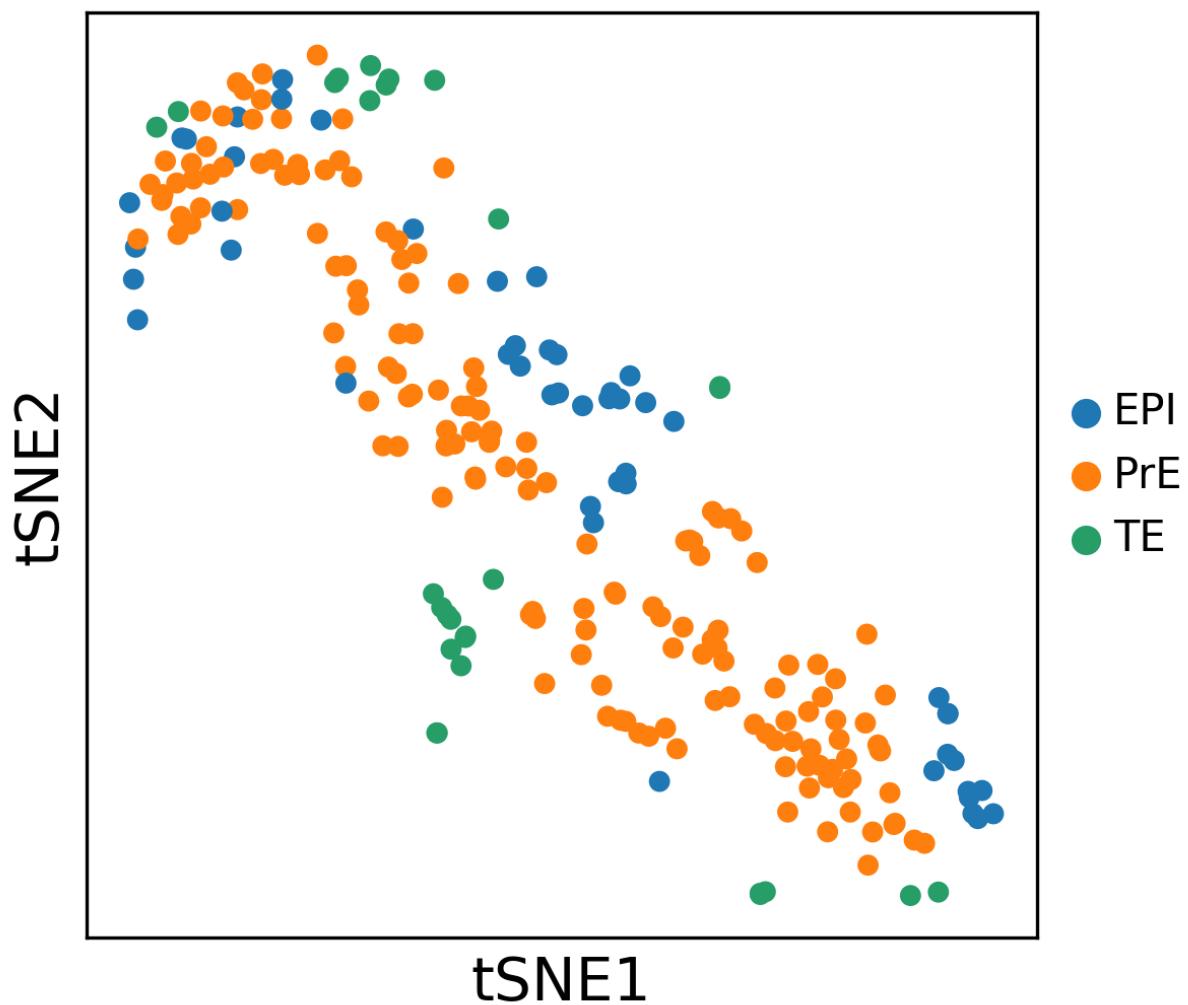


Figure 18: tSNE plot colored by cell type, E4.5

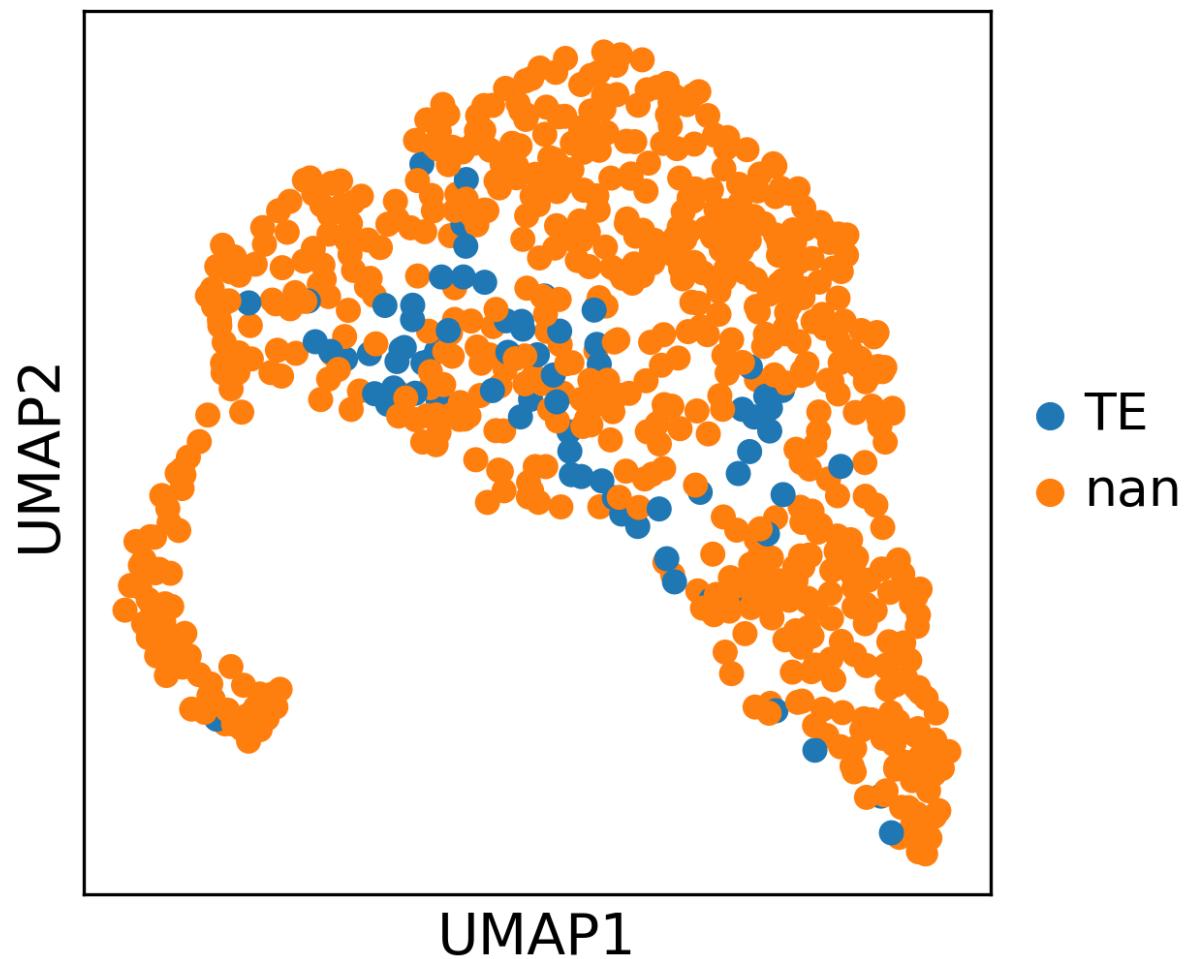


Figure 19: UMAP embedding by cell type, time point E3.5

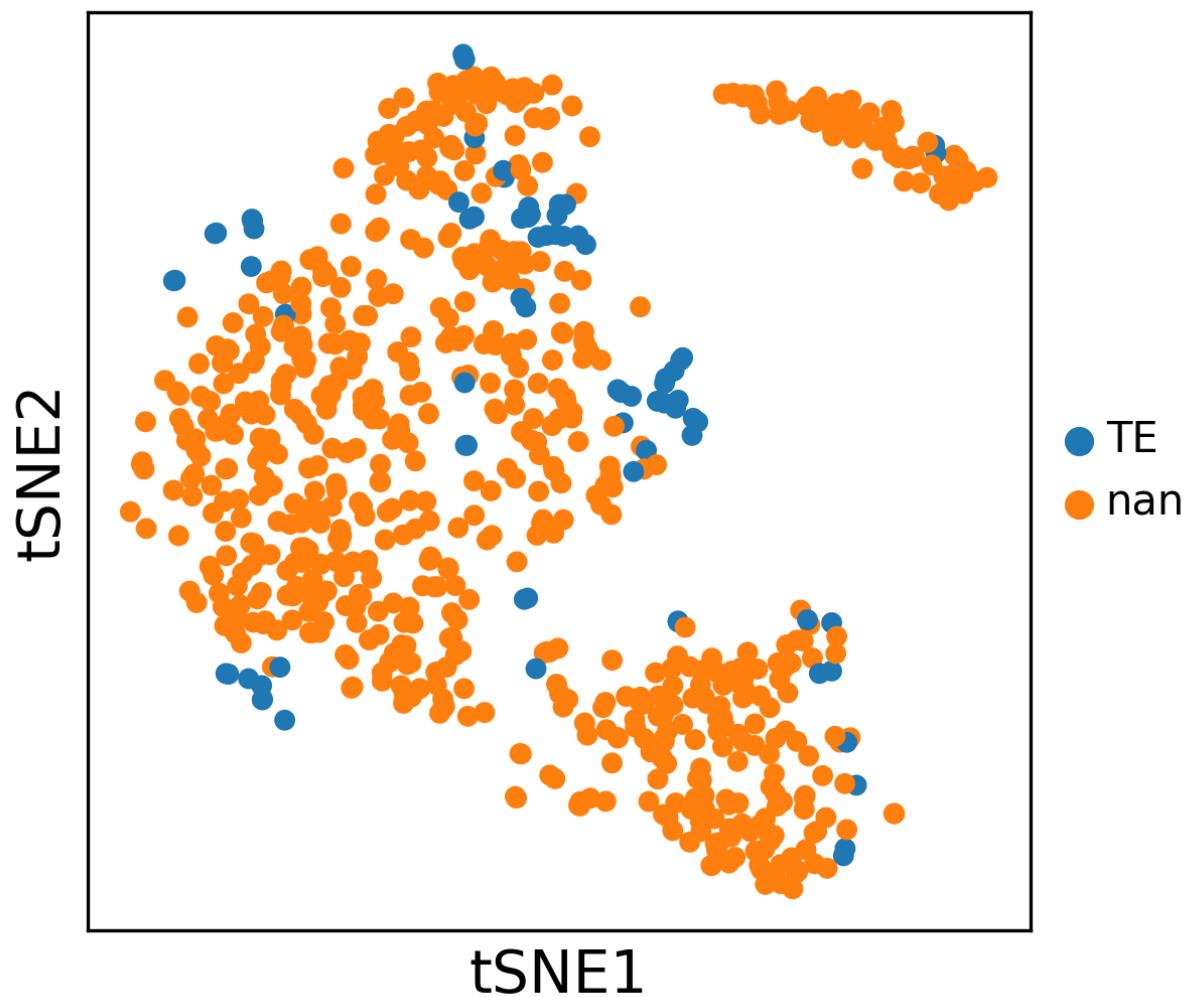


Figure 20: tSNE plot colored by cell type, E3.5

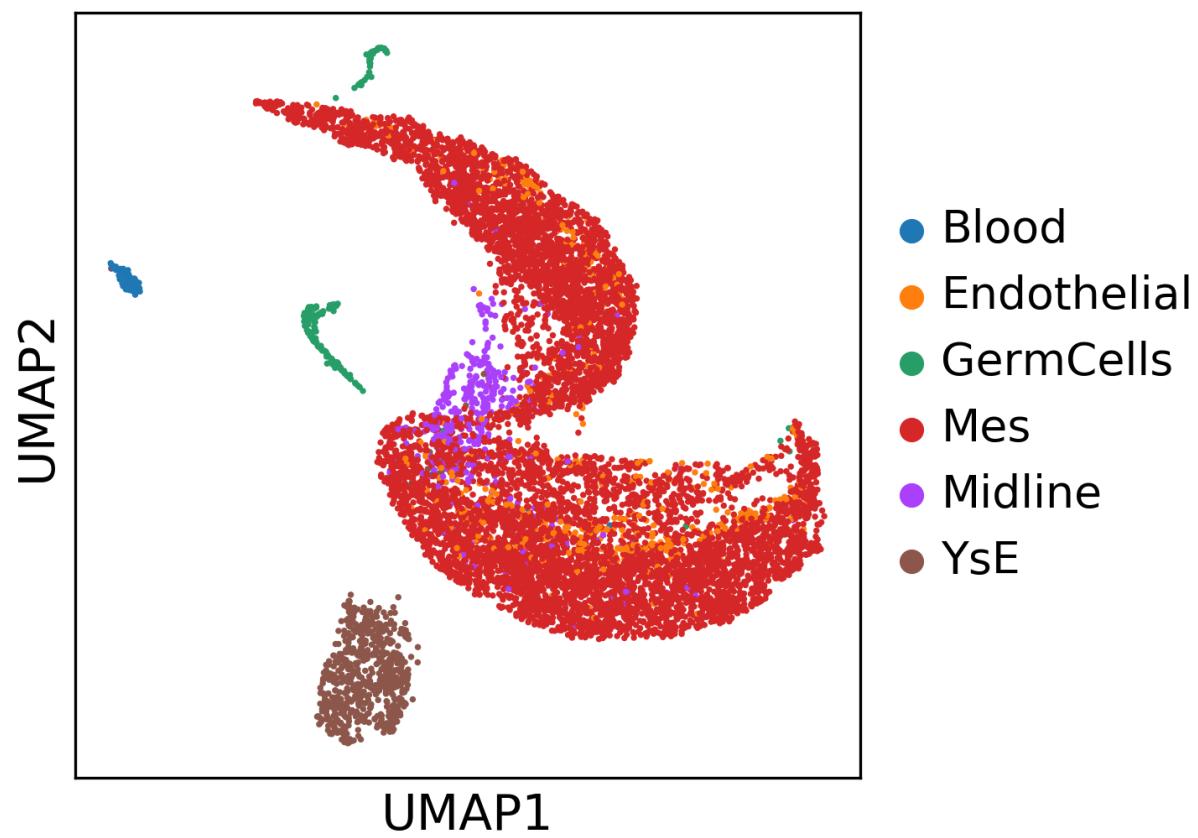


Figure 21: UMAP embedding by cell type, time point E8.75_GFP

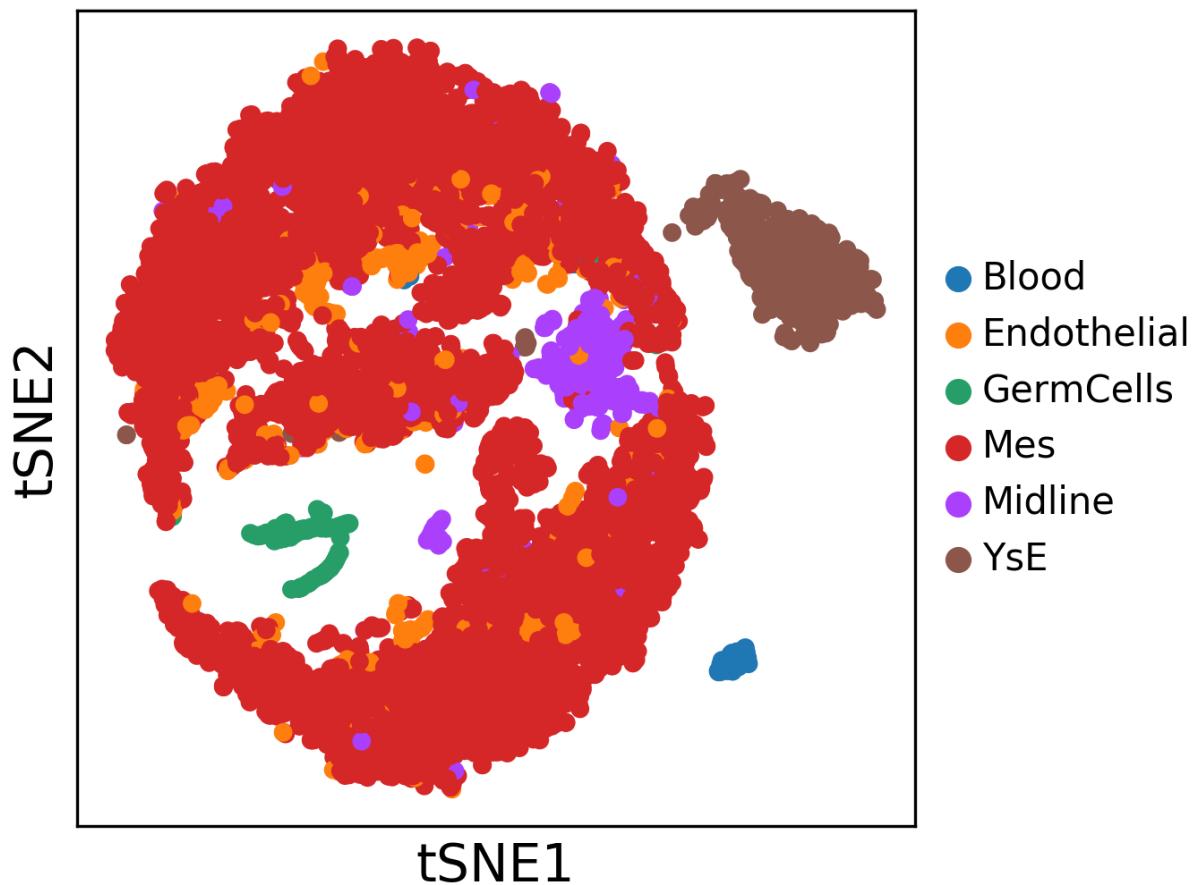


Figure 22: tSNE plot colored by cell type, E8.75_gfp

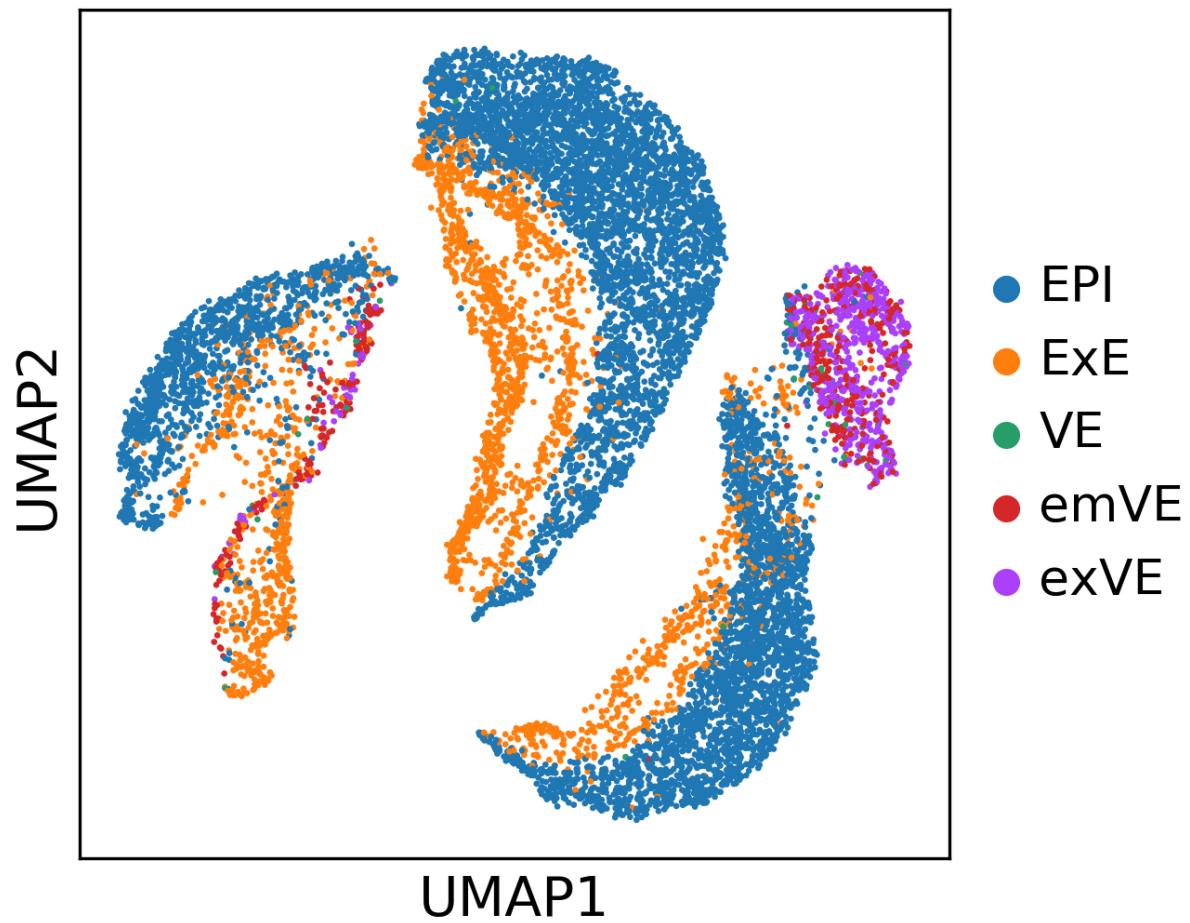


Figure 23: UMAP embedding by cell type, time point E5.5.

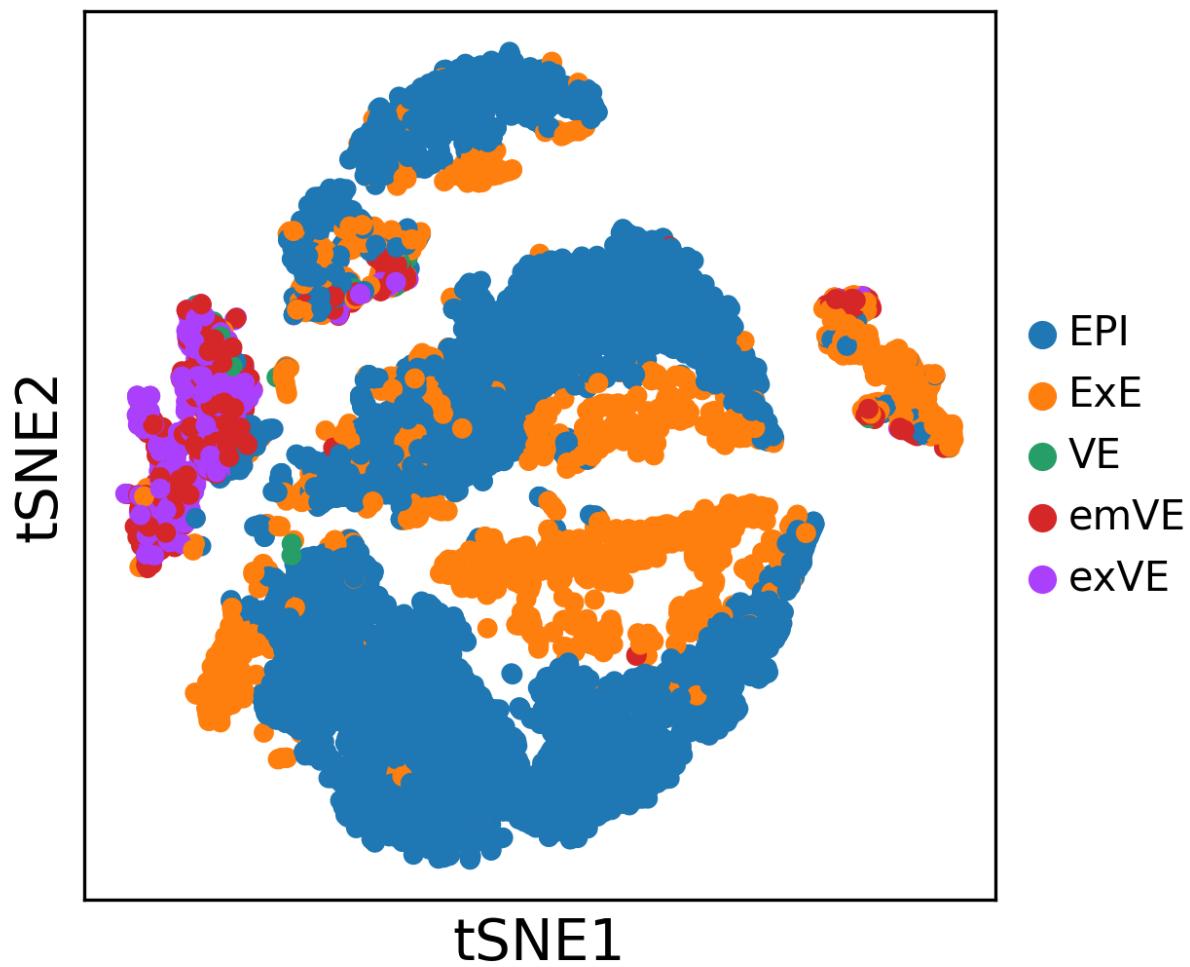


Figure 24: tSNE plot colored by cell type, E5.5

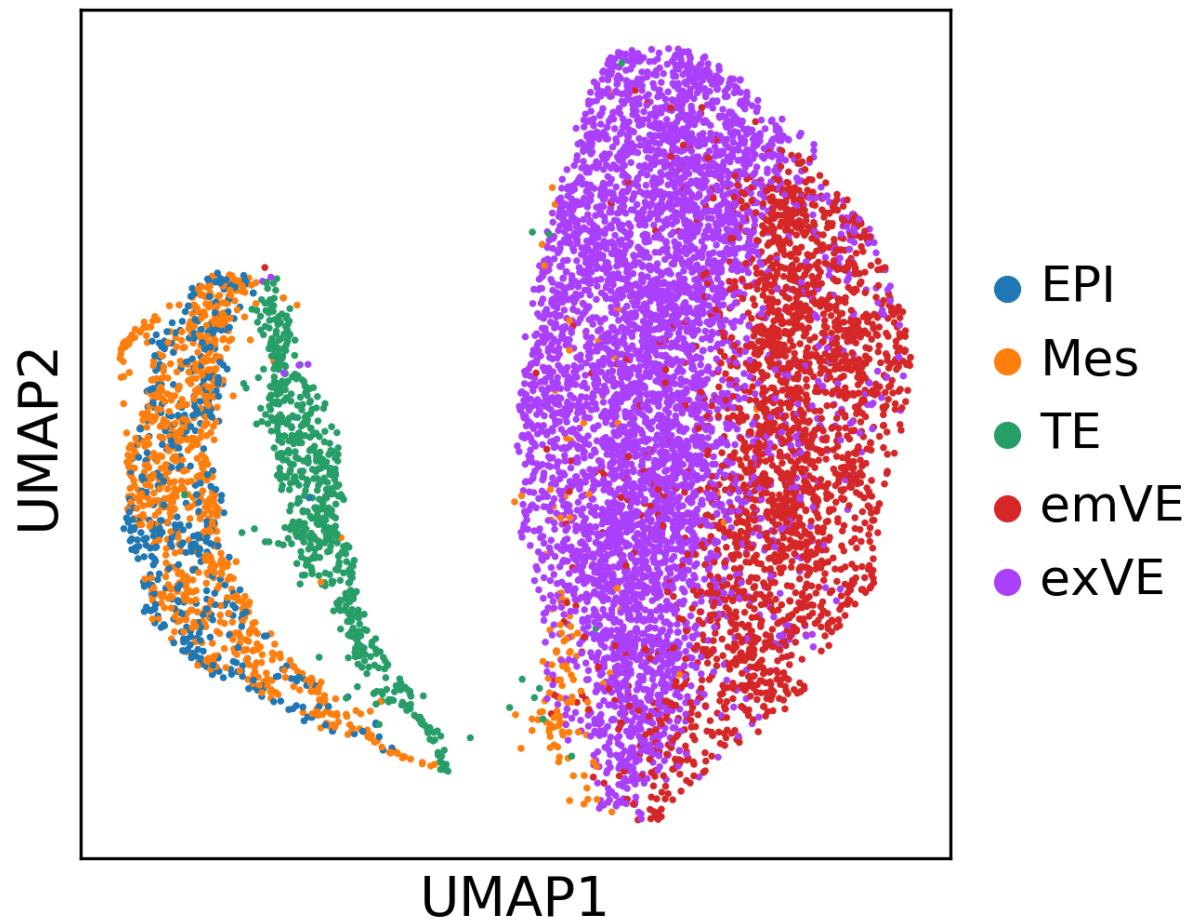


Figure 25: UMAP embedding by cell type, time point E6.5

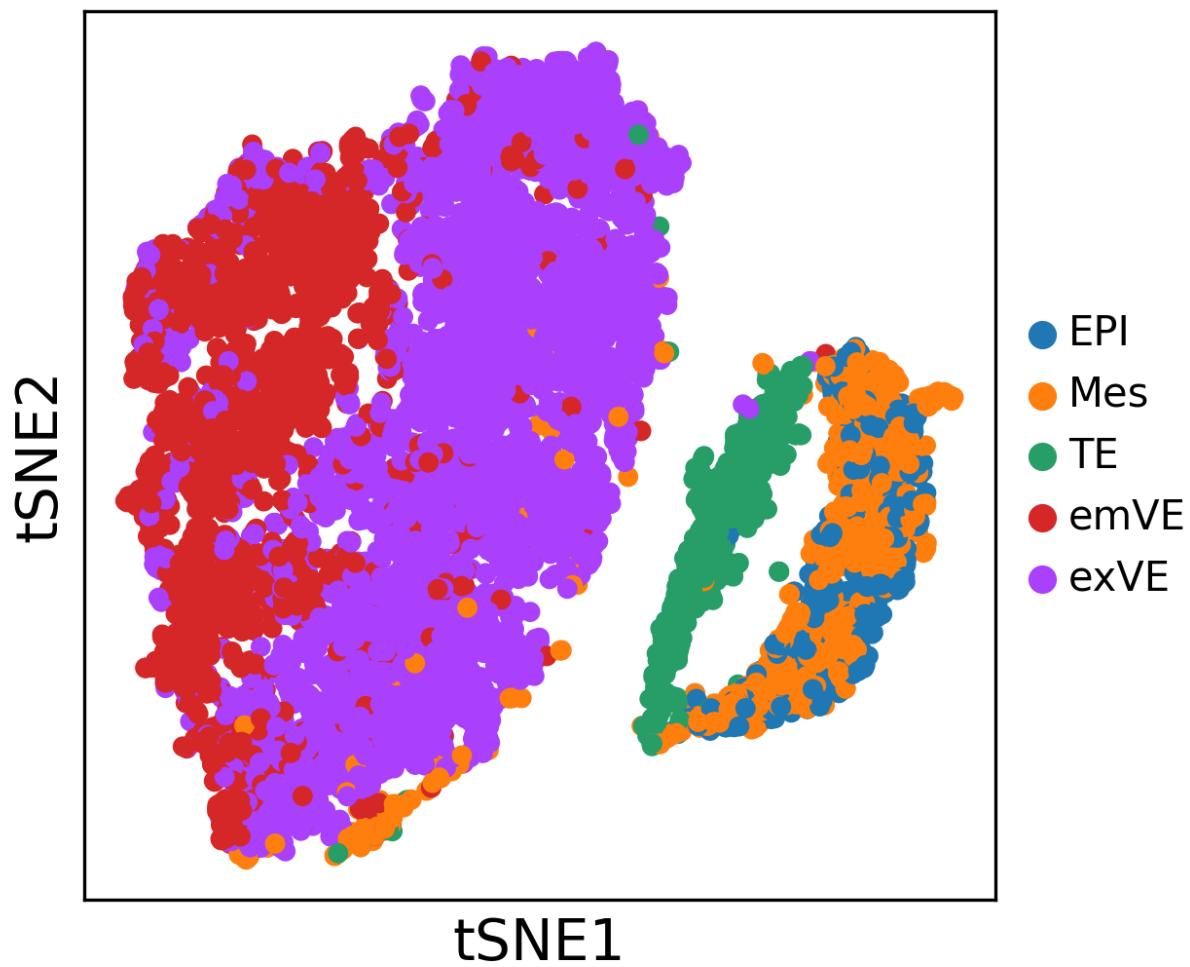


Figure 26: tSNE plot colored by cell type, E6.5

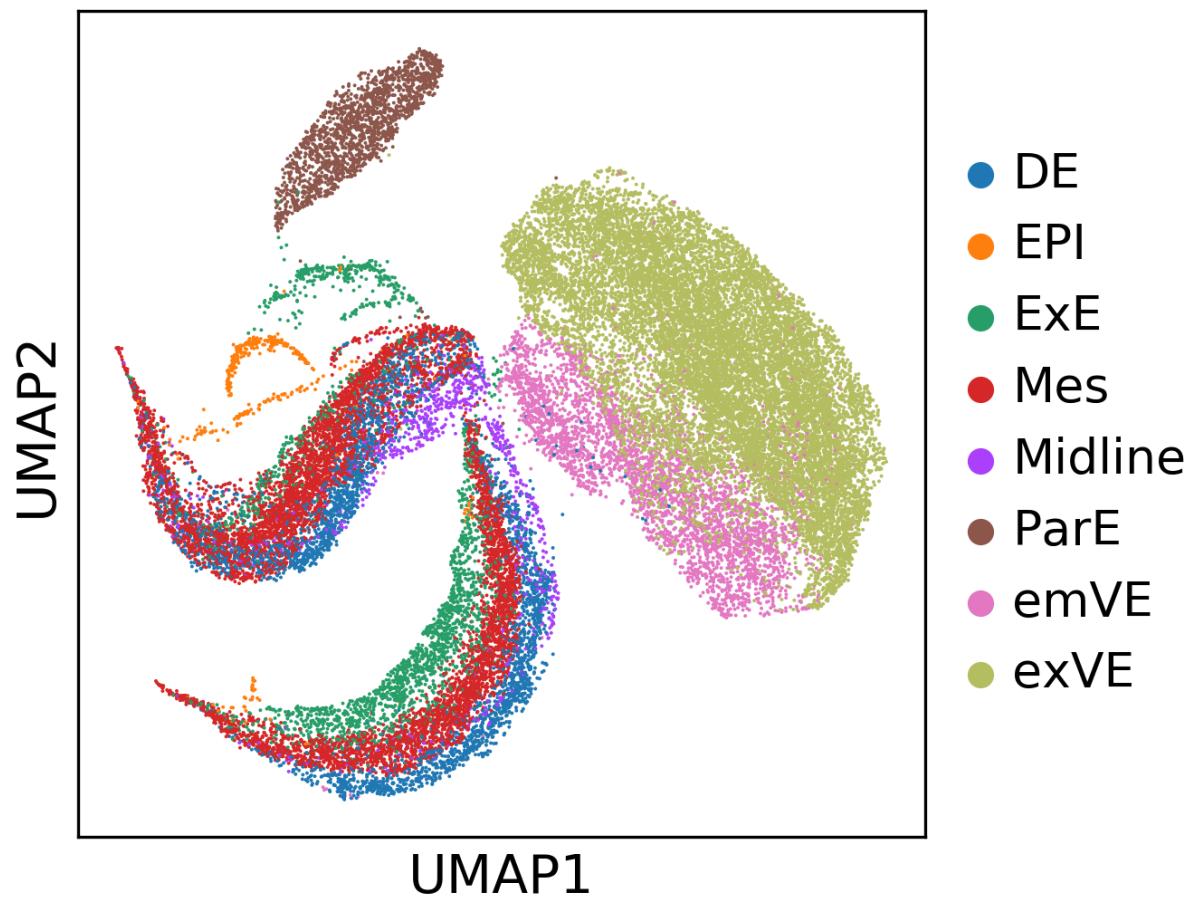


Figure 27: UMAP embedding by cell type, time point E7.5

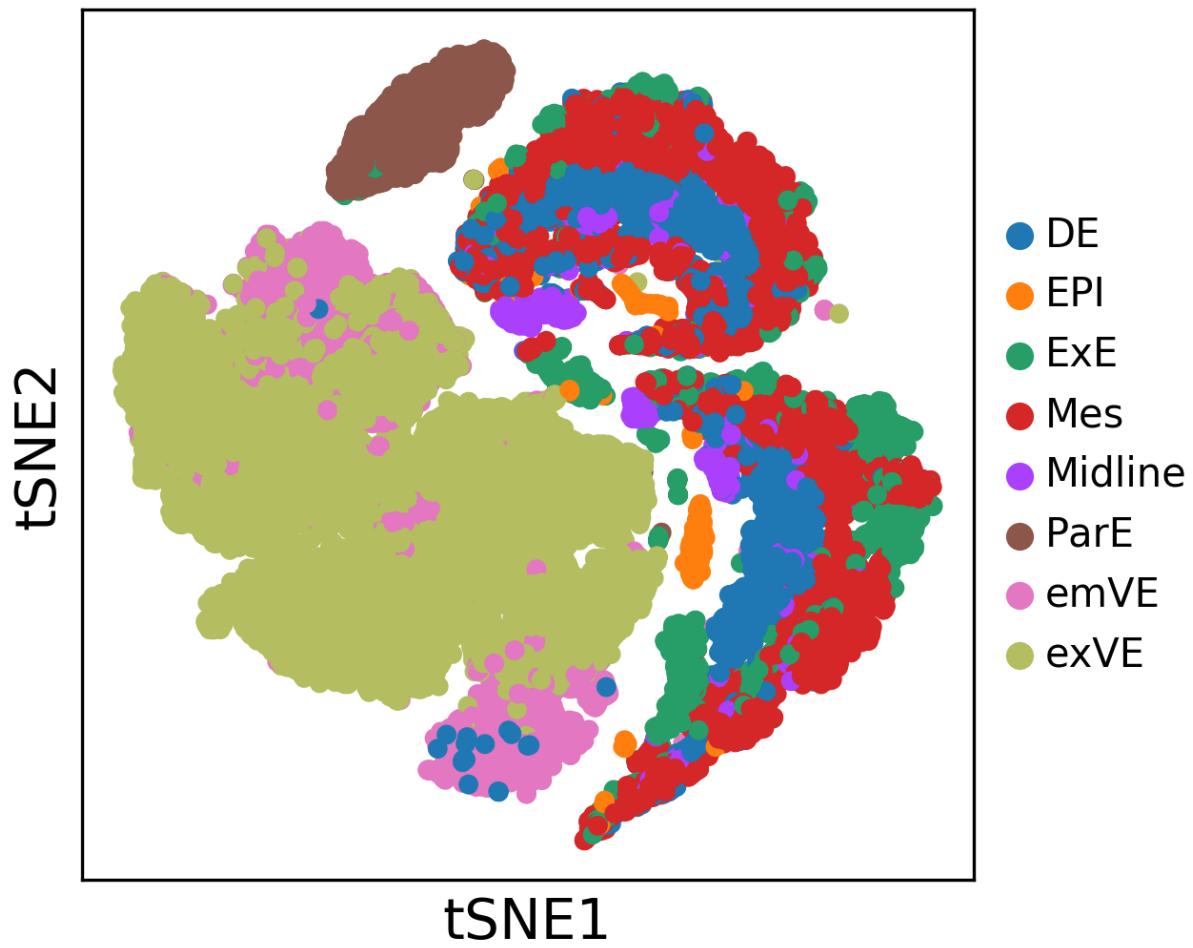


Figure 28: tSNE plot colored by cell type, E7.5

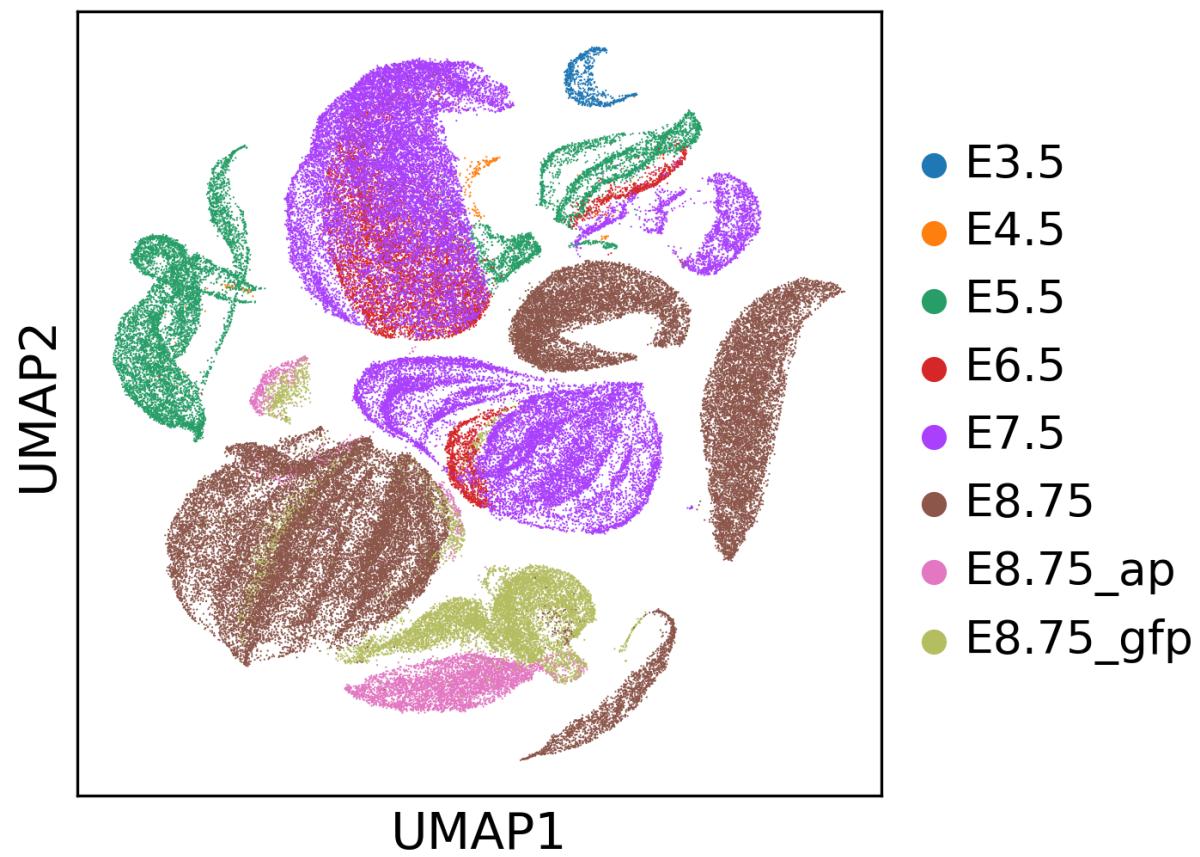


Figure 29: UMAP visualization on entire dataset colored by timepoint (default settings)

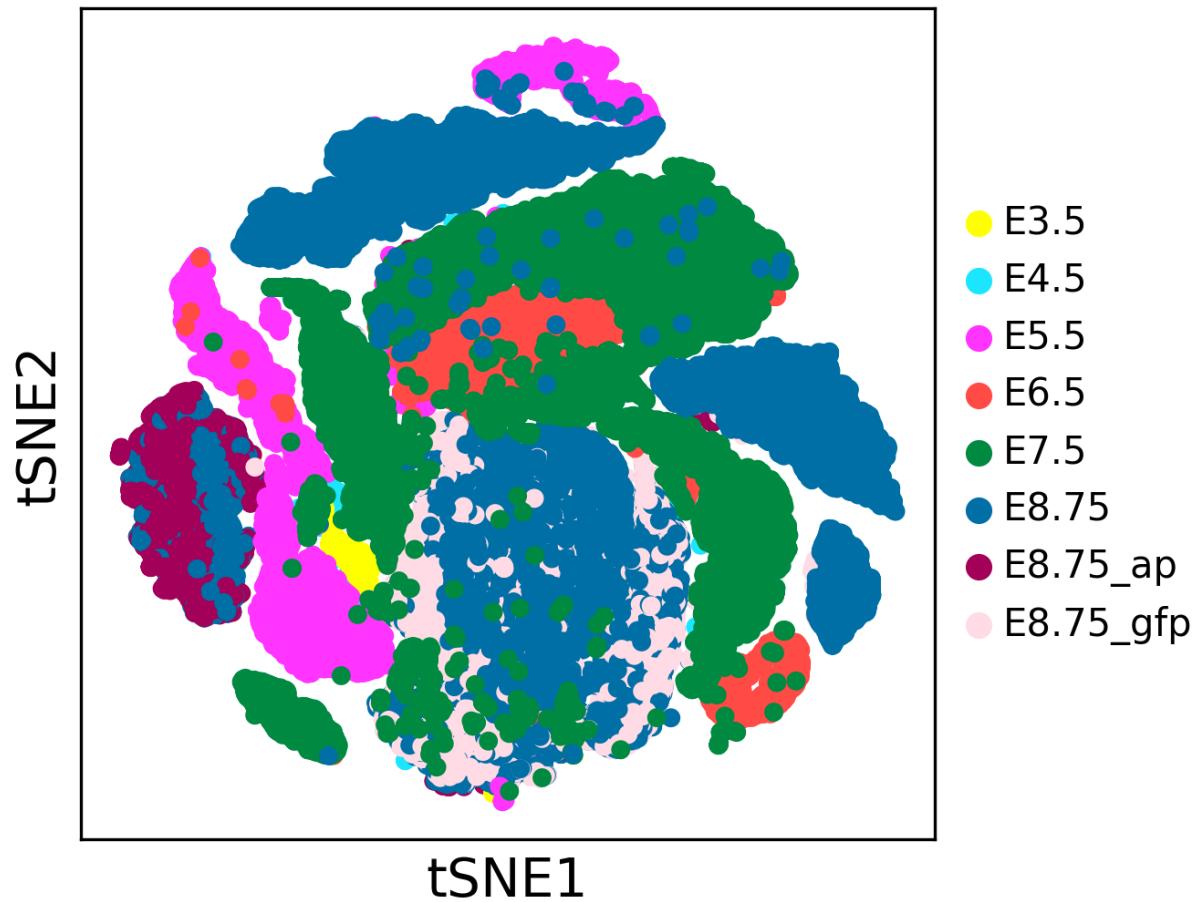


Figure 30: tSNE visualization on entire dataset colored by time point

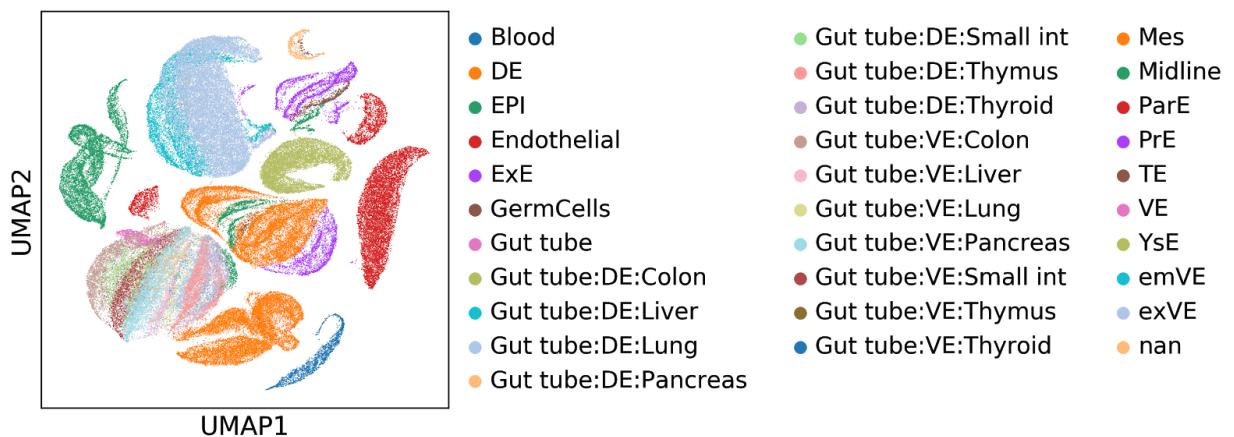


Figure 31: UMAP visualization colored by cell type on entire dataset (default settings)

Clustering by cell type with full dataset (PCA analysis, n=5 neighbors) (done twice)

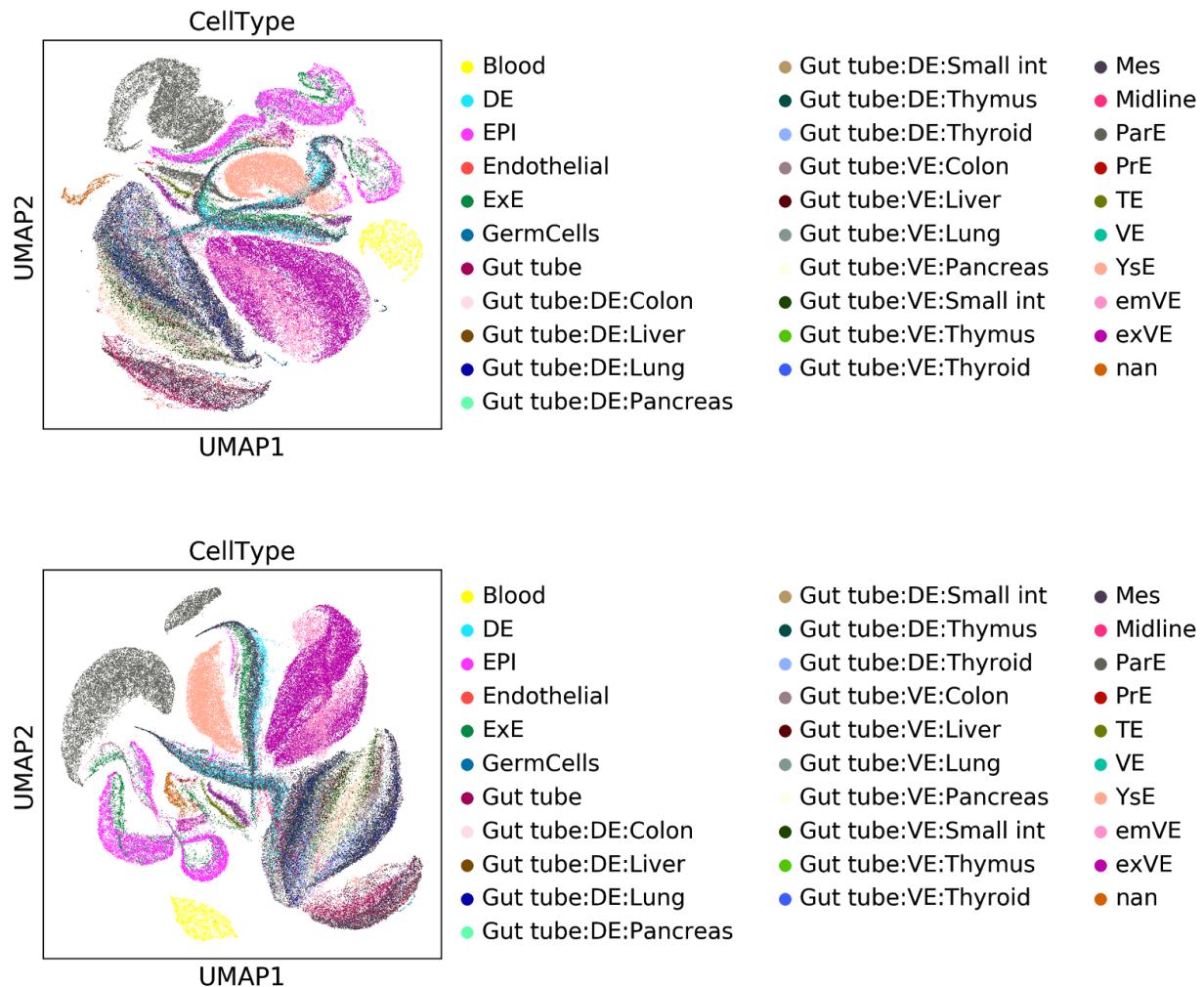


Figure 32: UMAP visualization colored by cell type on entire dataset (less number of neighbors). Procedure to create figure was repeated twice to yield two figures.

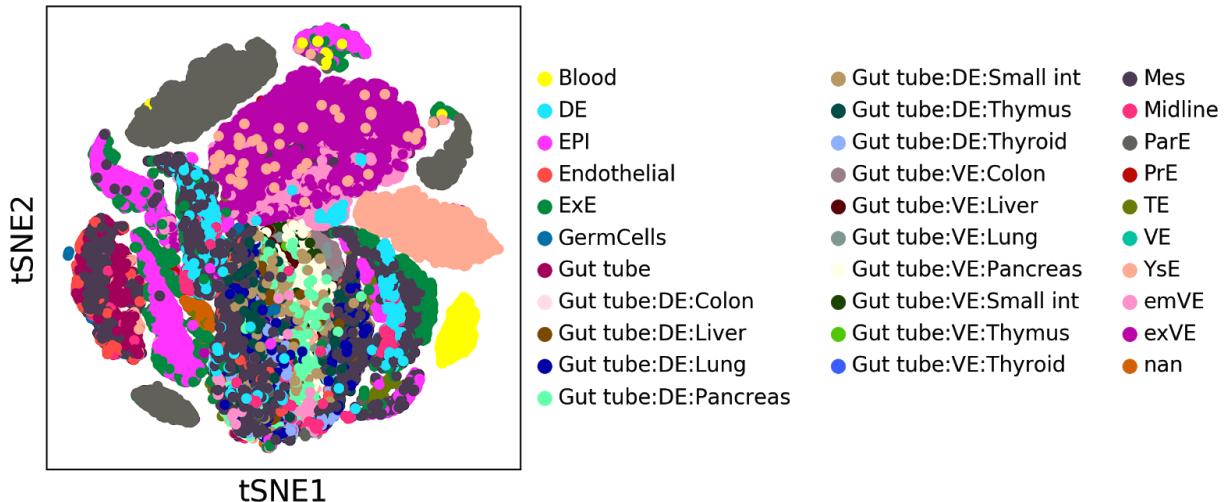


Figure 33: tSNE visualization colored by cell type on entire dataset

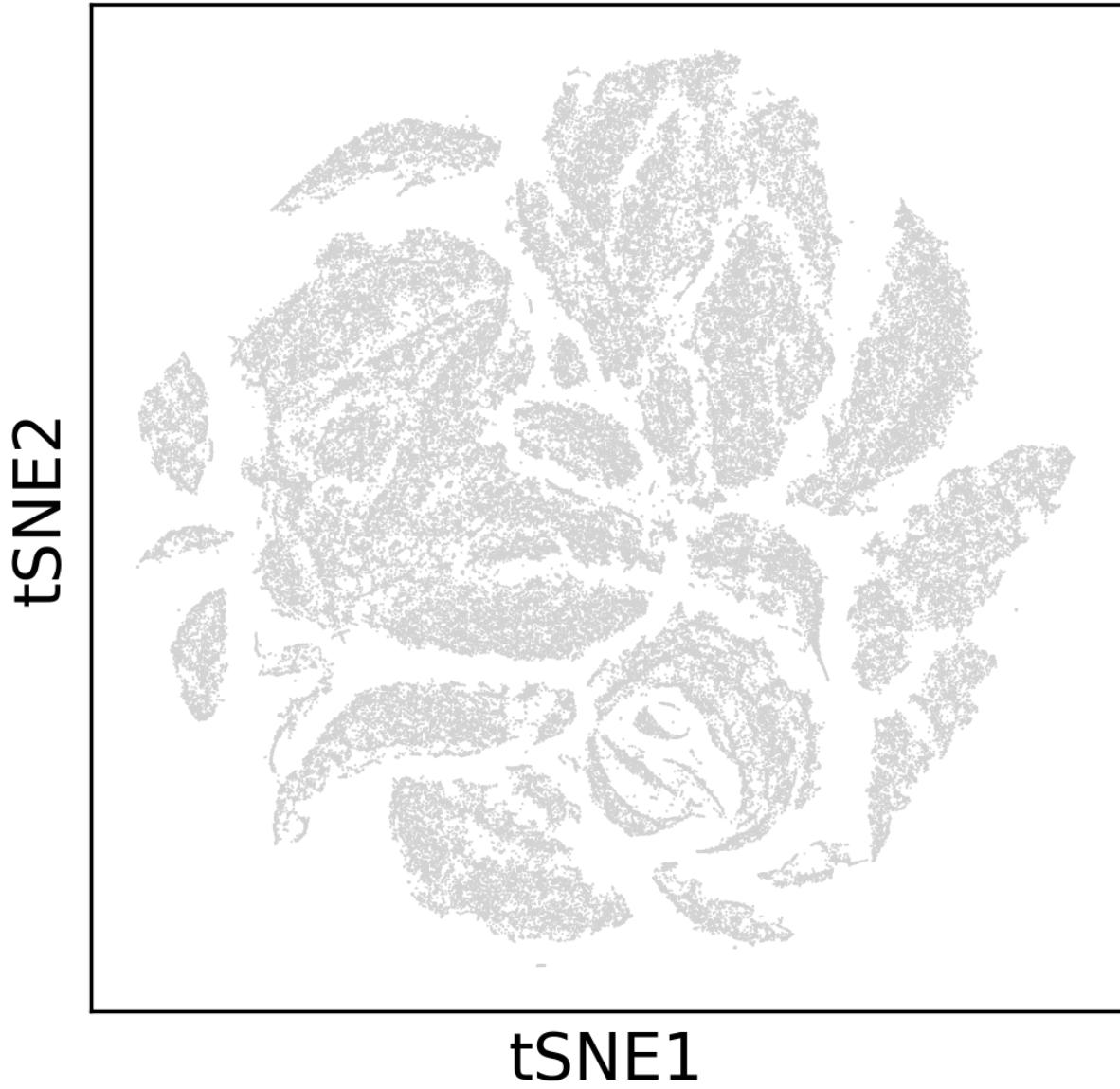


Figure 34: tSNE on entire data, categorized by cell type, time point, and clusters

Data from Harmony sample data (E3.5 and E4.5 time points)

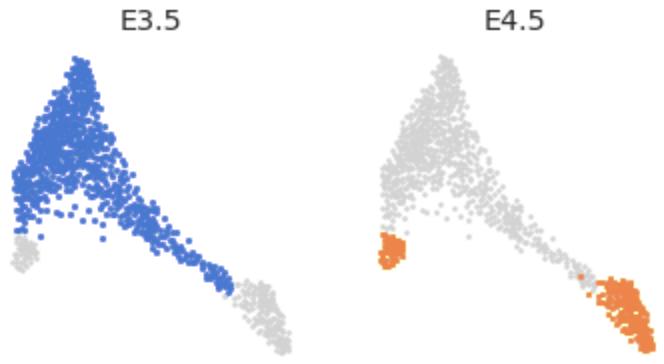


Figure 35: Force directed layout visualization between different time points

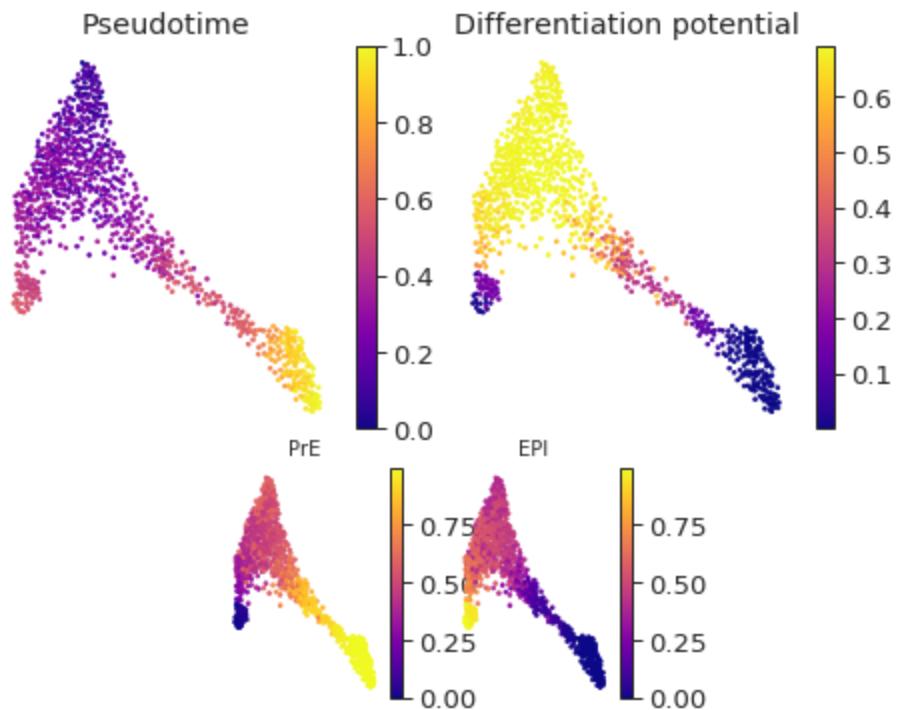


Figure 36: Palantir trajectory detection in Primitive embryonic endoderm (PrE) and epiblast (EPI)



Figure 37: Expression of PrE gene GATA6 on force directed layout using Palantir algorithm

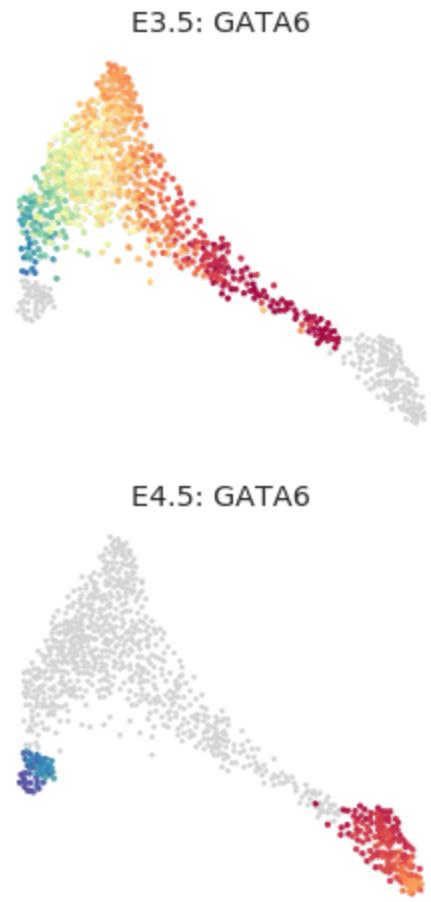


Figure 38: Gata6 gene expression visualized on force directed layout timepoint wise