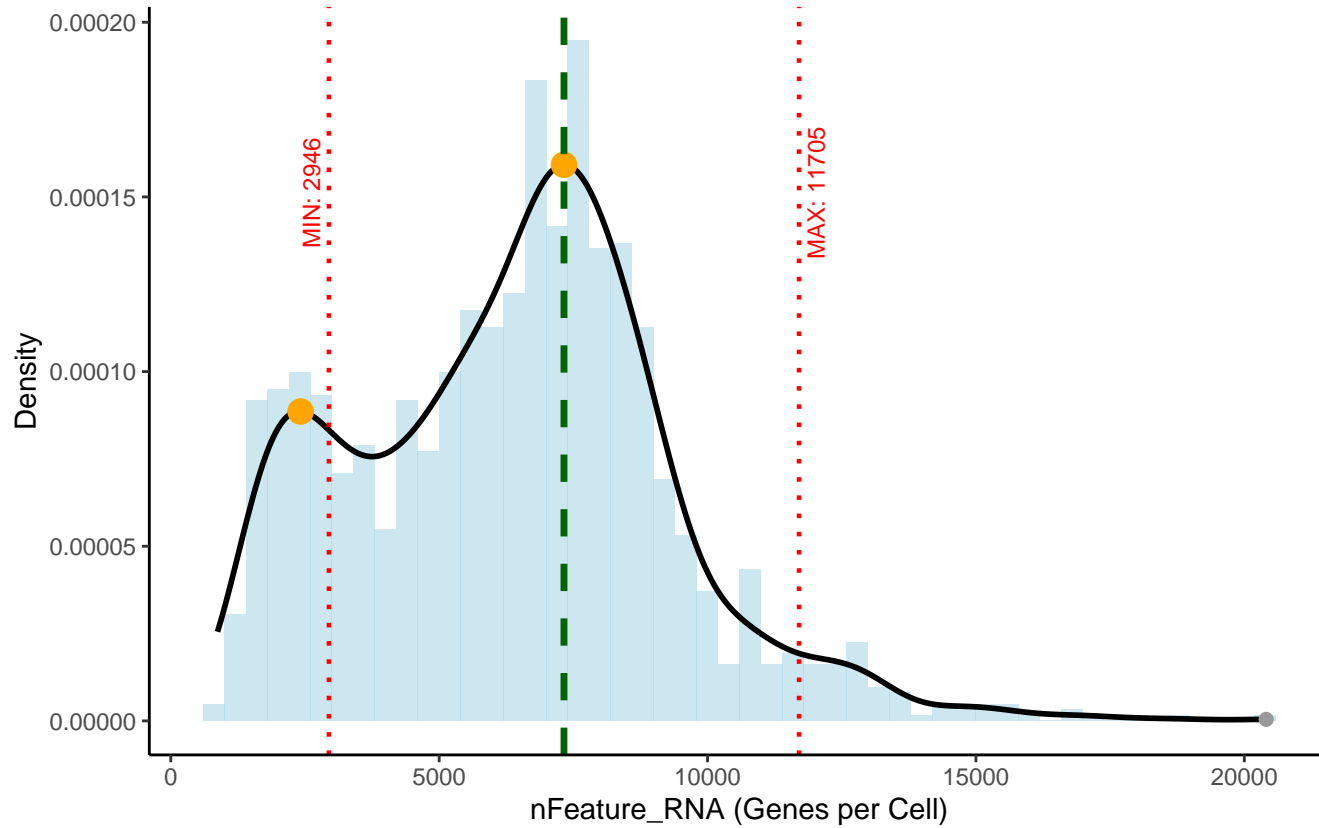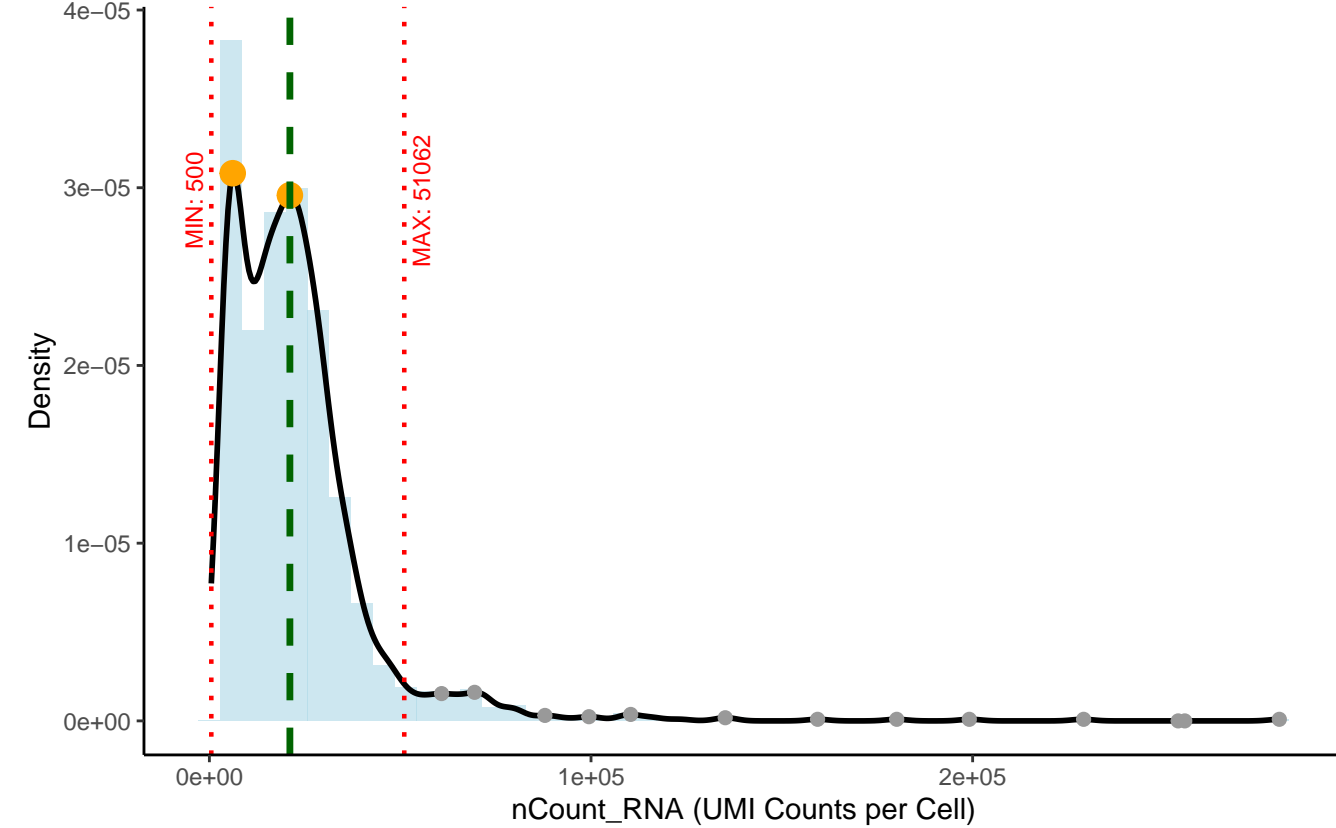# org_3B – Adaptive Threshold Determination

org_3B: nFeature_RNA (Genes per Cell) Distribution
Method: peak | Selected peak: 7325.3 | Total peaks: 3 | Top 2 peaks used

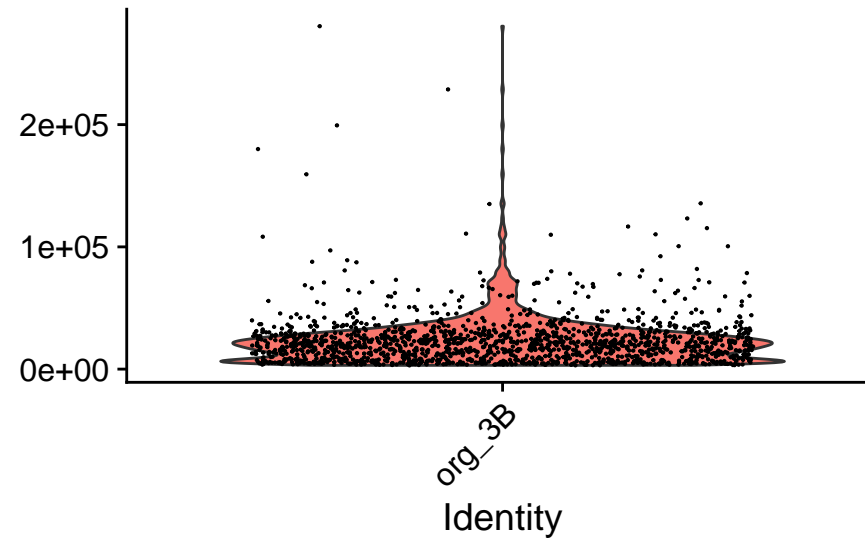## org_3B: nCount_RNA (UMI Counts per Cell) Distribution
Method: peak | Selected peak: 21094.3 | Total peaks: 15 | Top 2 peaks used

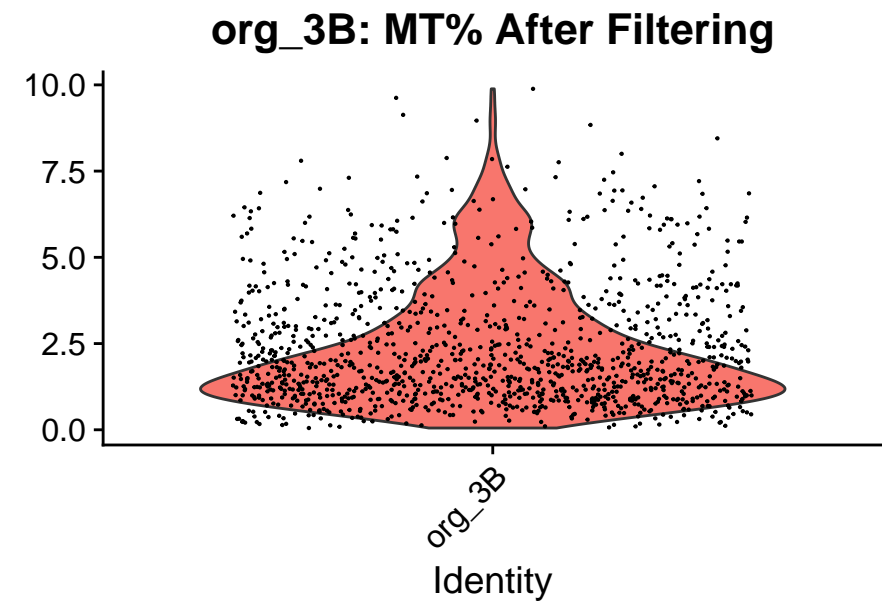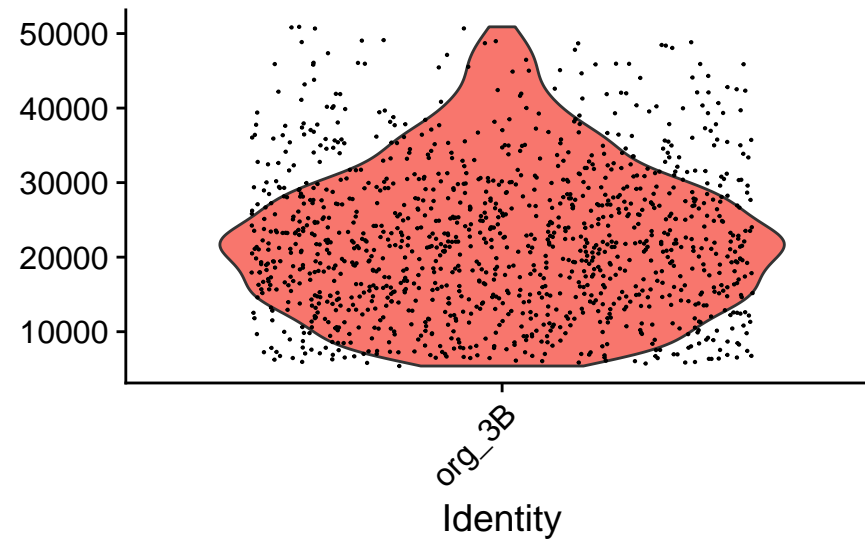| Metric	Method	Selected_Peak	Total_Peaks	Top2_Peaks	SD	MIN_Threshold	MAX_Threshold
ature_RNA	peak	7325	3	7325, 2420	2920	2946	11705
ount_RNA	peak	21094	15	6115, 21094	19978	500	51062

org_3B – Filtering Summary
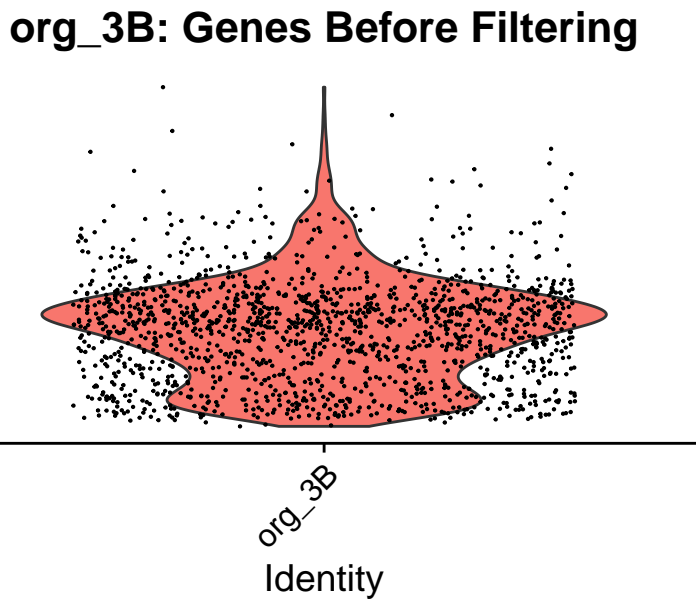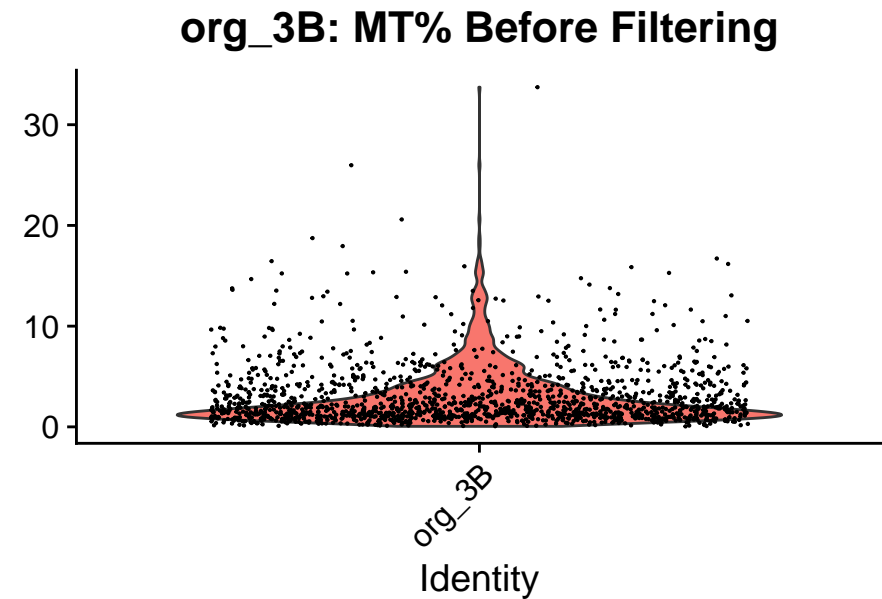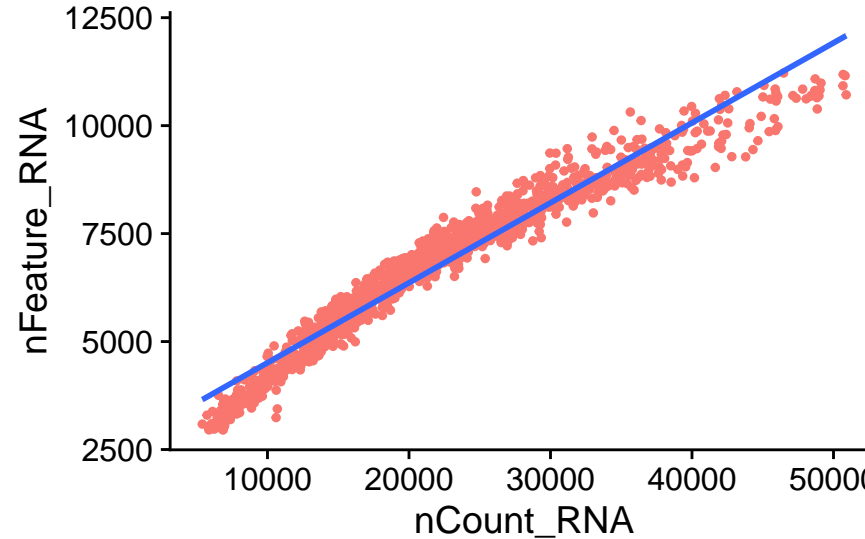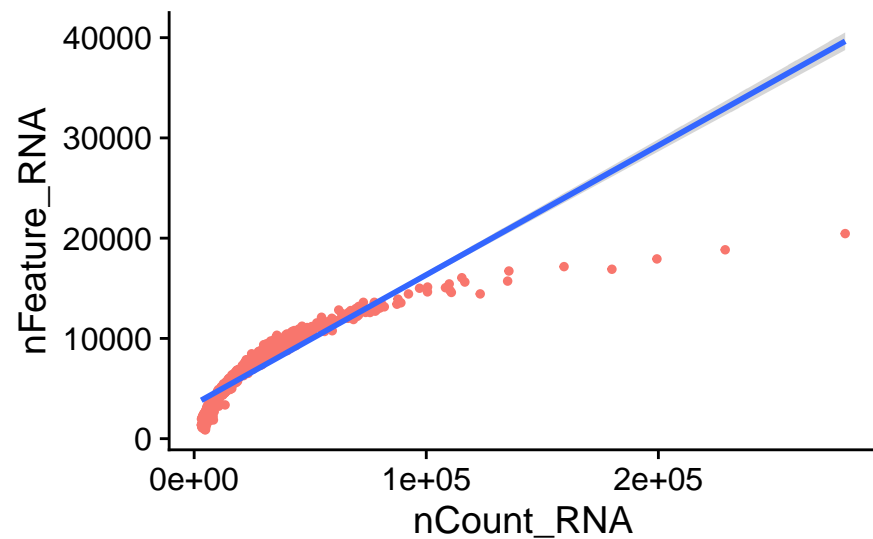
	Metric	Before	After
1	Cells	1555.000000	1216.000000
2	Genes	42892.000000	42892.000000
3	Median nCount	19615.000000	21551.000000
4	Median nFeature	6628.000000	6925.500000
5	Median MT%	1.968643	1.850658

org_3B – Variable Features & Cell Cycle
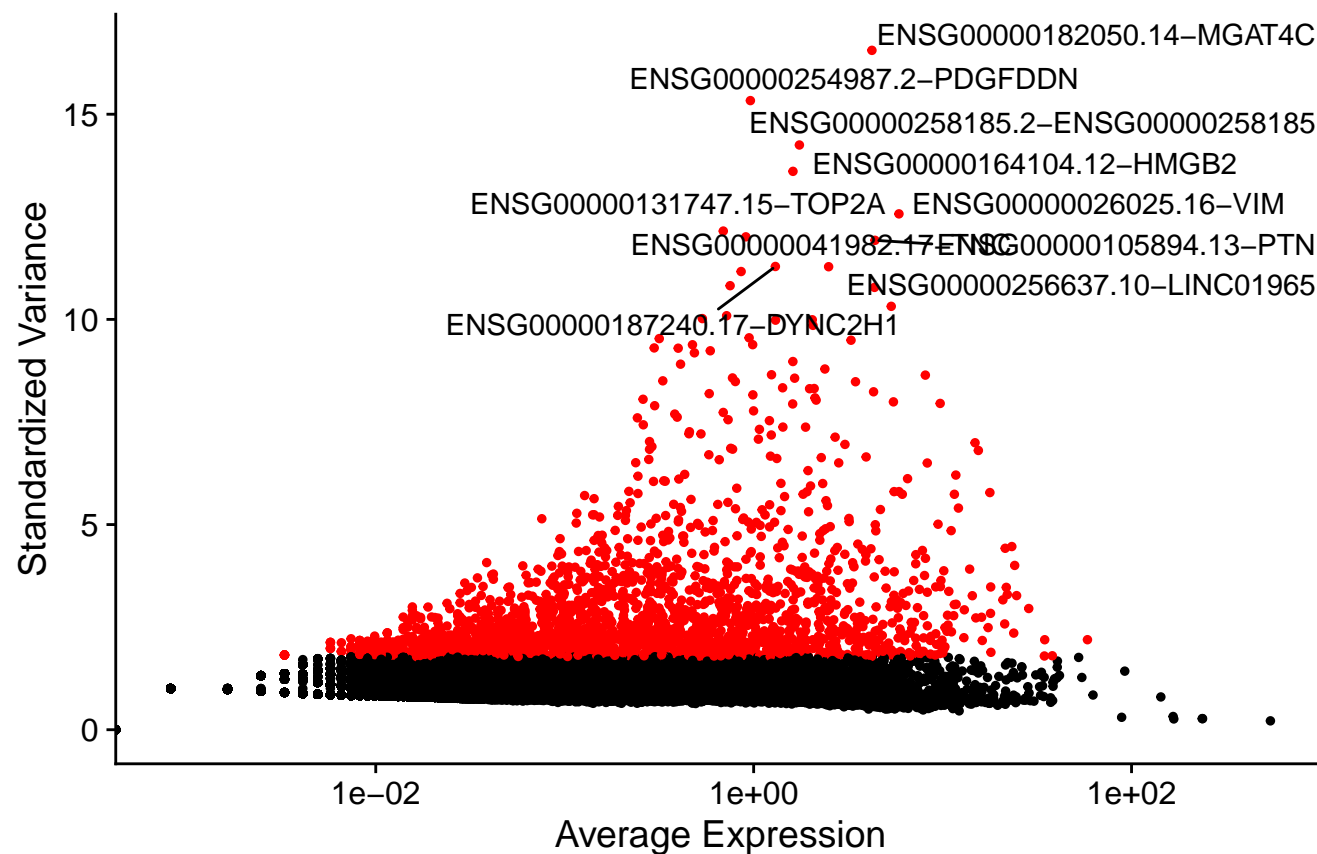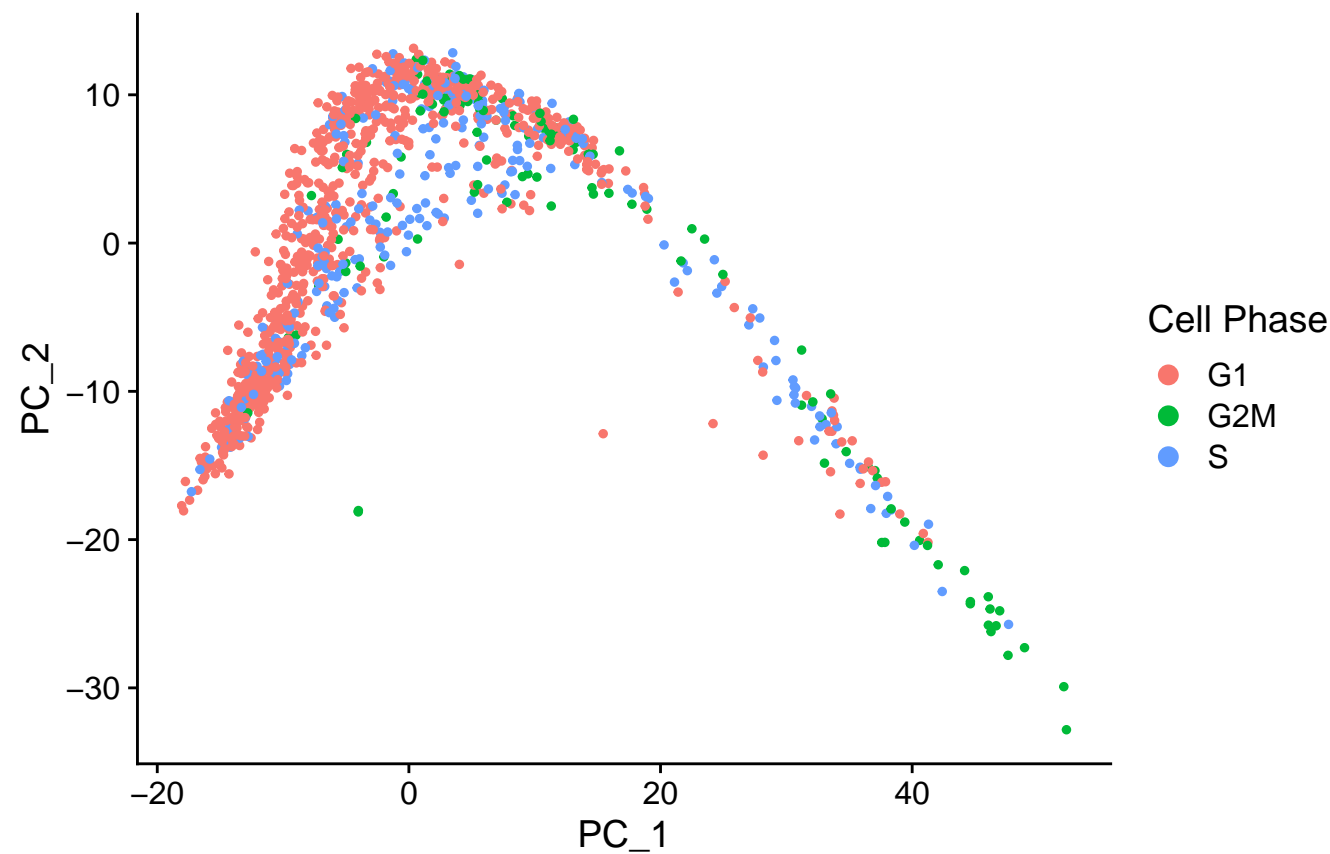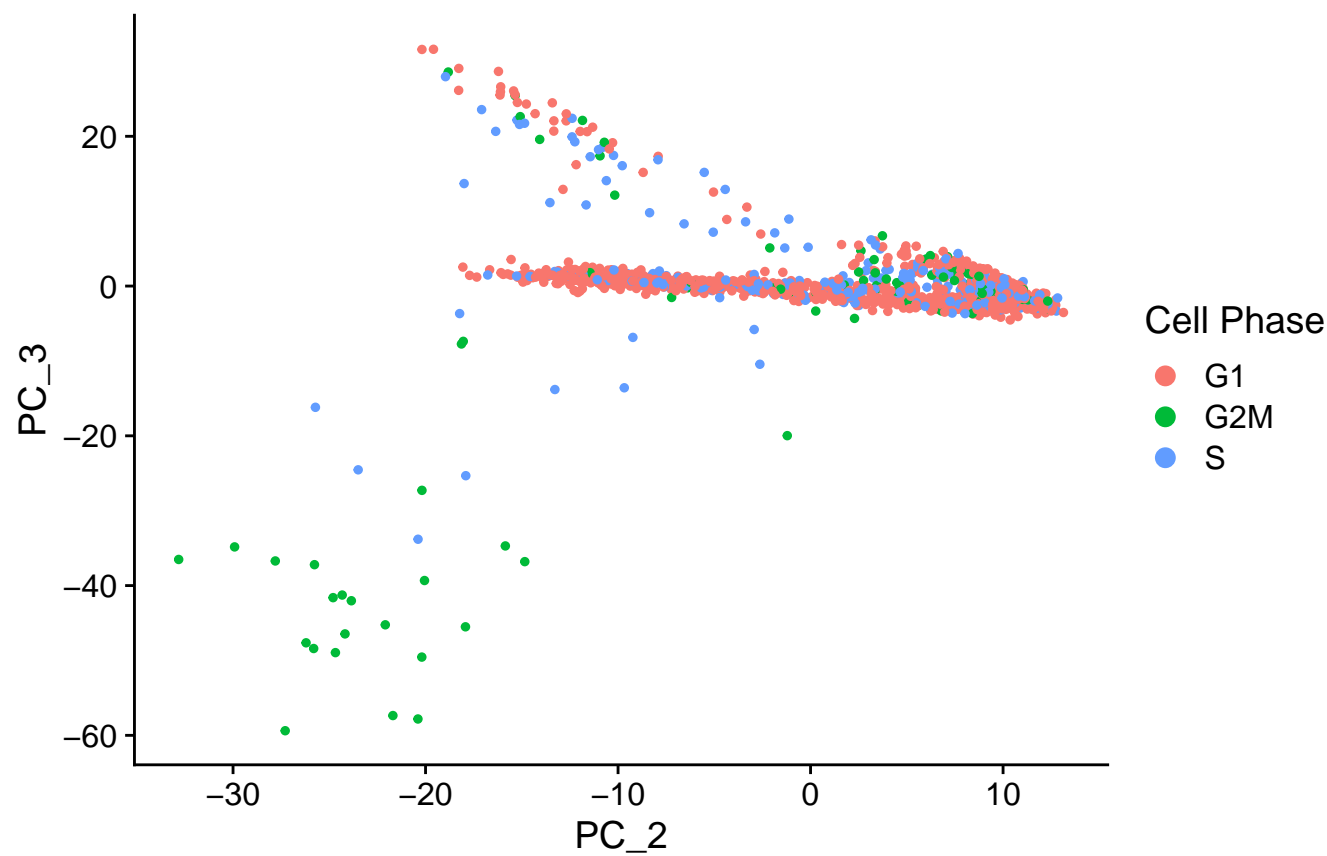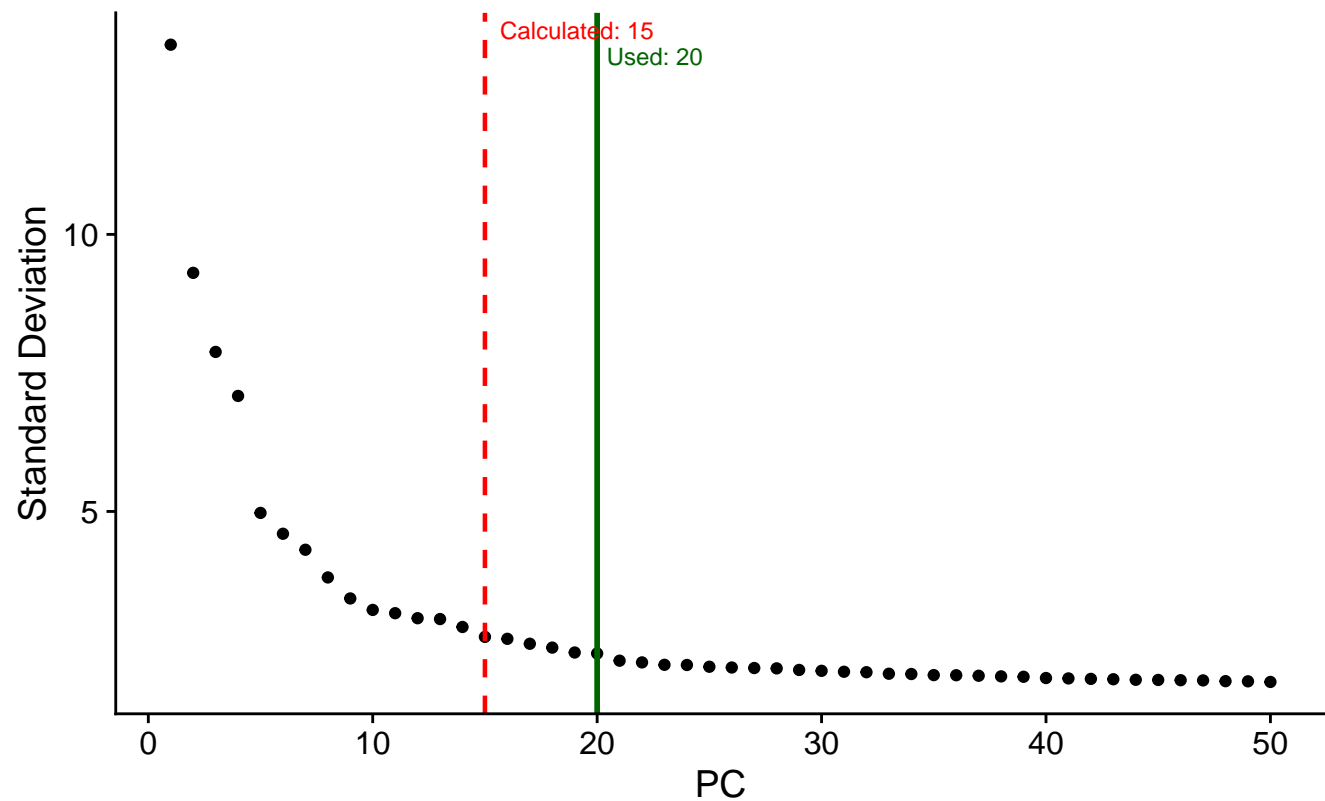
org_3B – PCA Selection & Silhouette Analysis

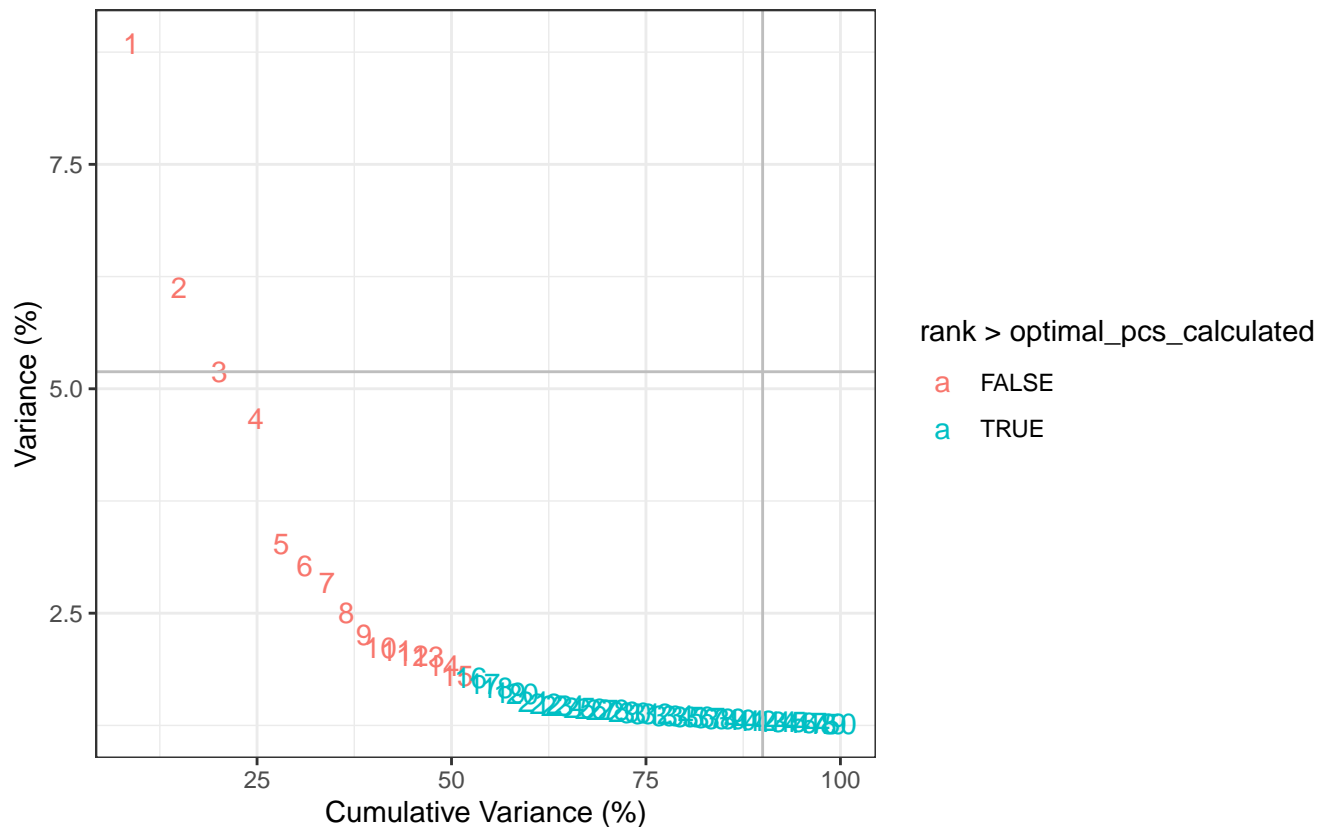## org_3B: Elbow Plot

Calculated: 15 PCs | Used: 20 PCs (+5)

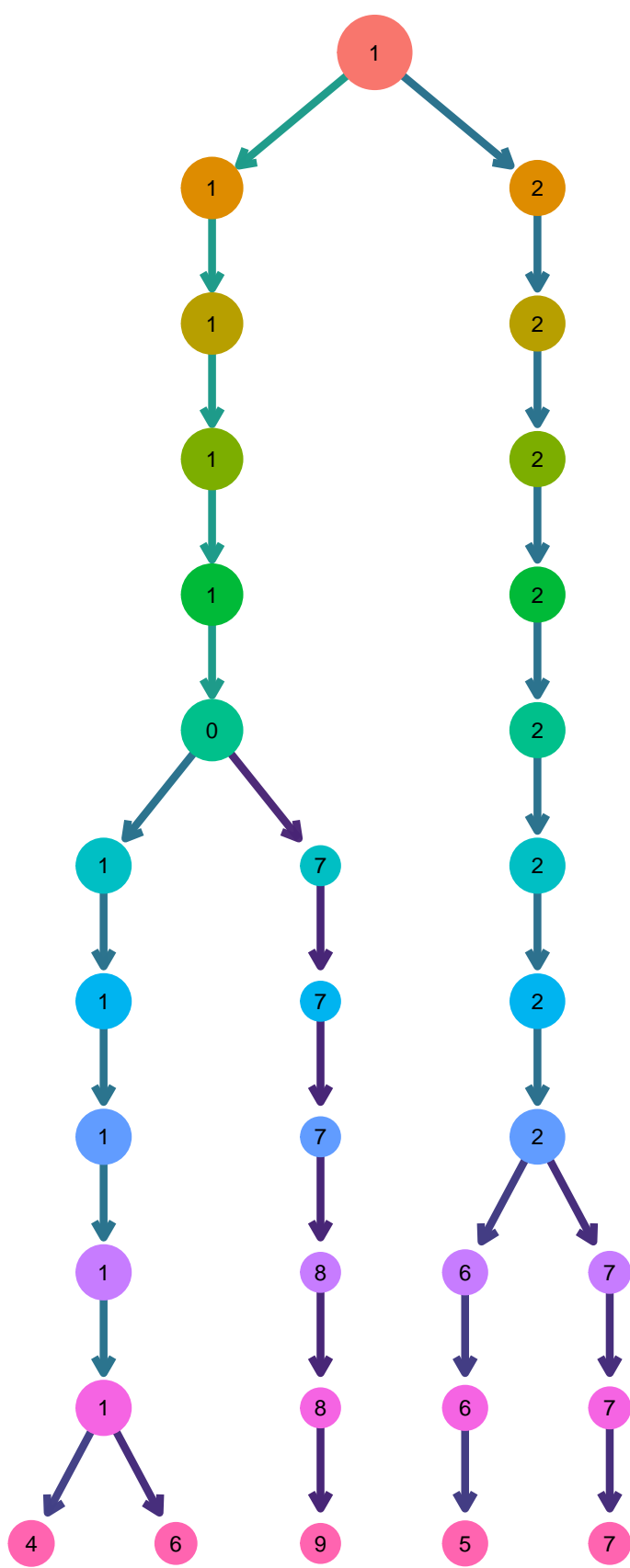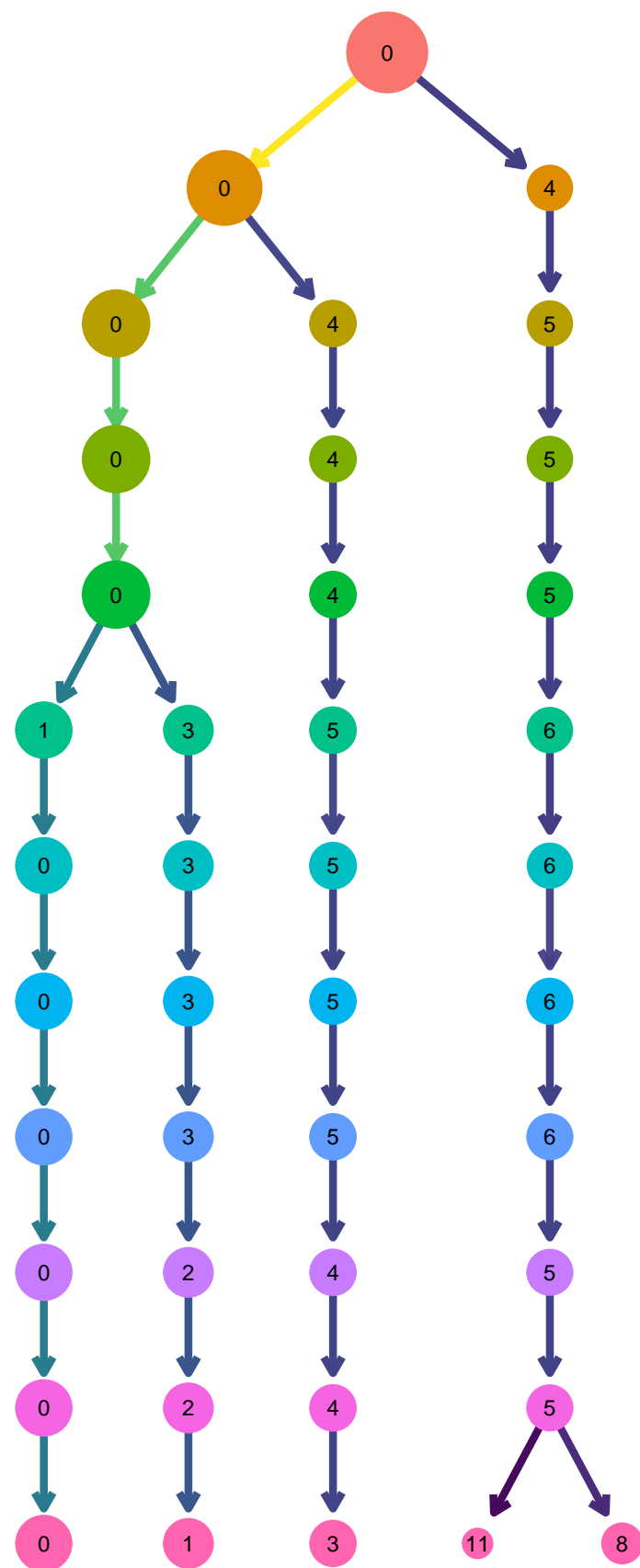## org_3B: Quantitative PC Selection

Calculated: 15 PCs | Used: 20 PCs (+5)

rank > optimal_pcs_calculated

a FALSE

a TRUE

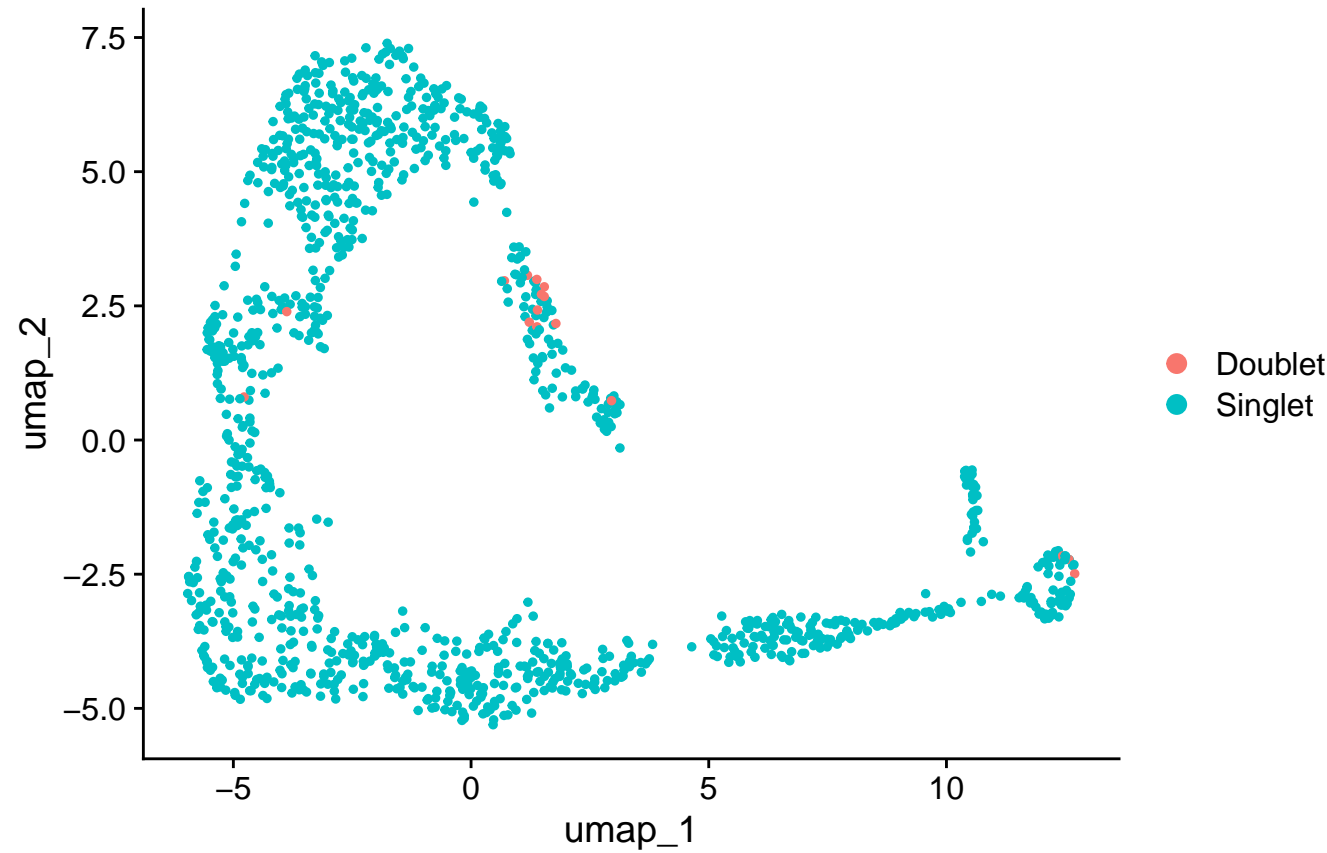|	res_vals	num_clusters	avg_sil_vals
1	0.3	8	0.35283655820304
2	0.2	6	0.348179323151582
3	0.7	10	0.319829422723608
4	0.6	9	0.31419744781651
5	1.2	13	0.281863564983331
6	0.1	3	0.269638582523755
7	1	11	0.263192596847039

org_3B: Clustree

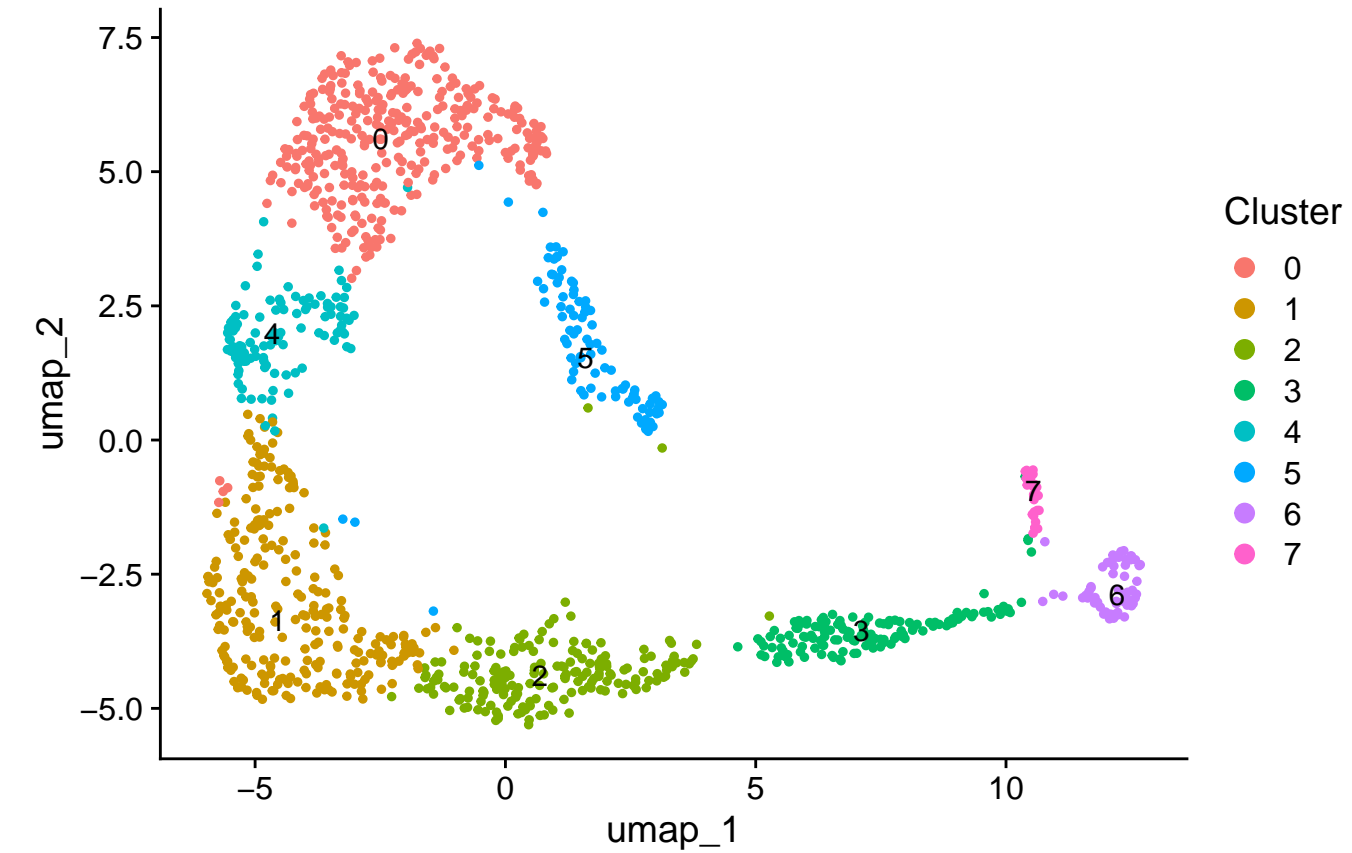org_3B – Clustering Resolution Tree
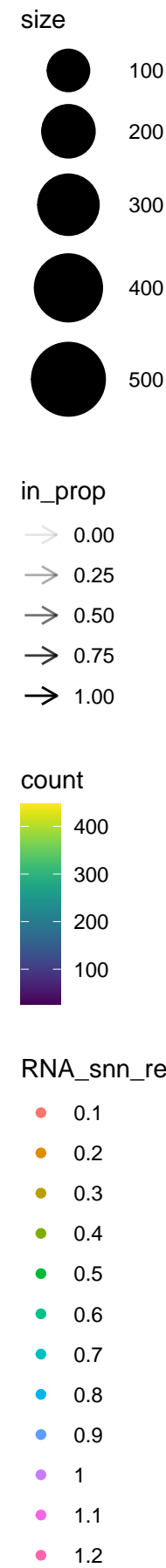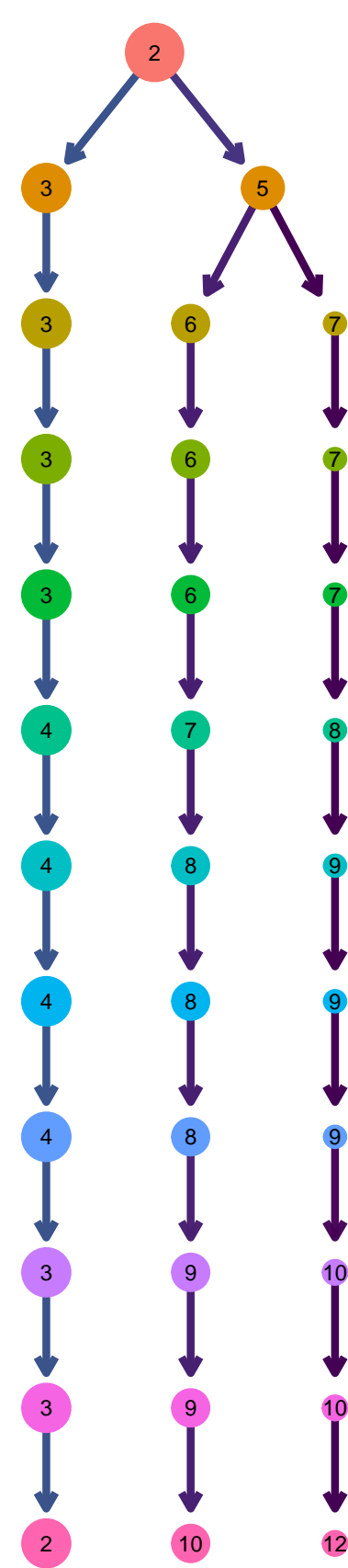
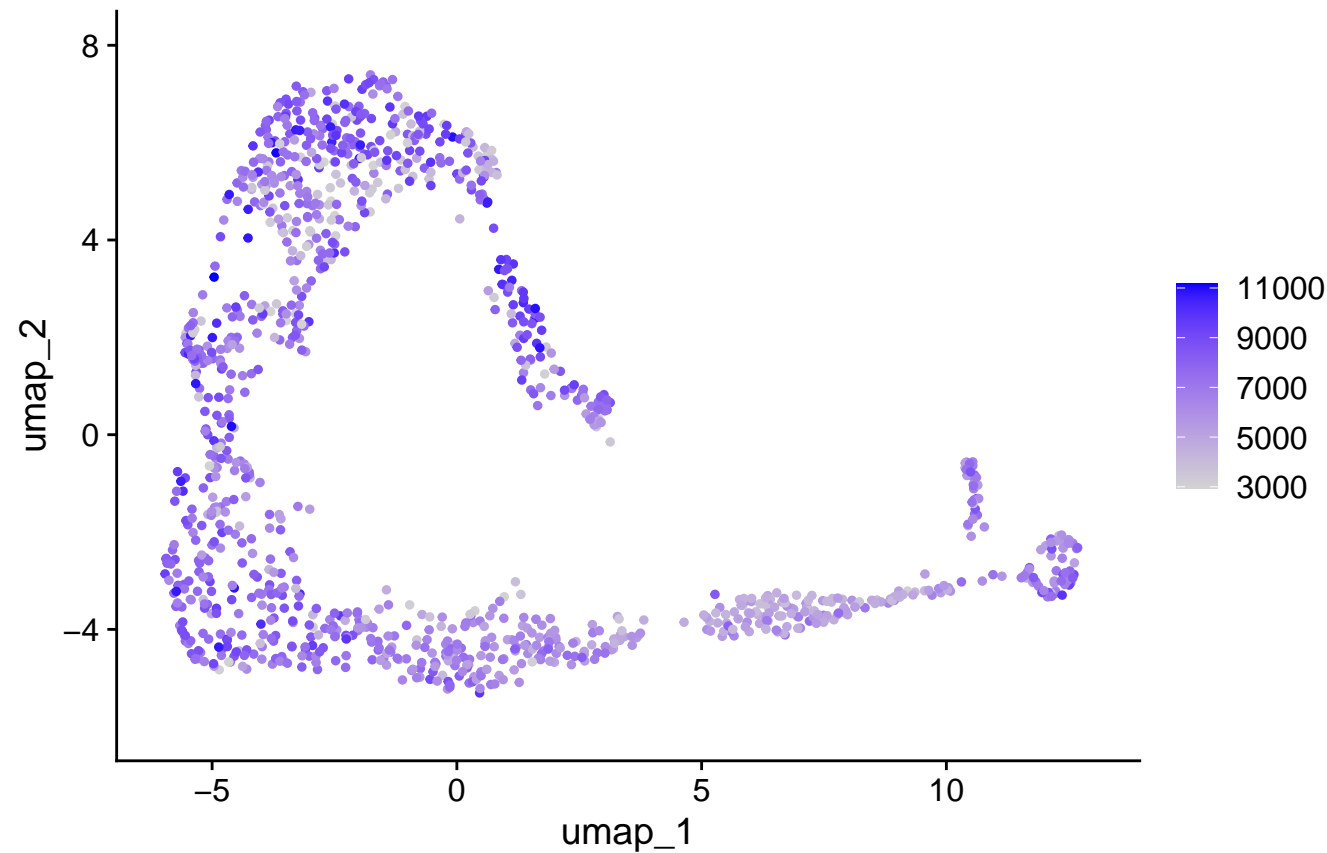# org_3B – UMAP & Doublet Removal
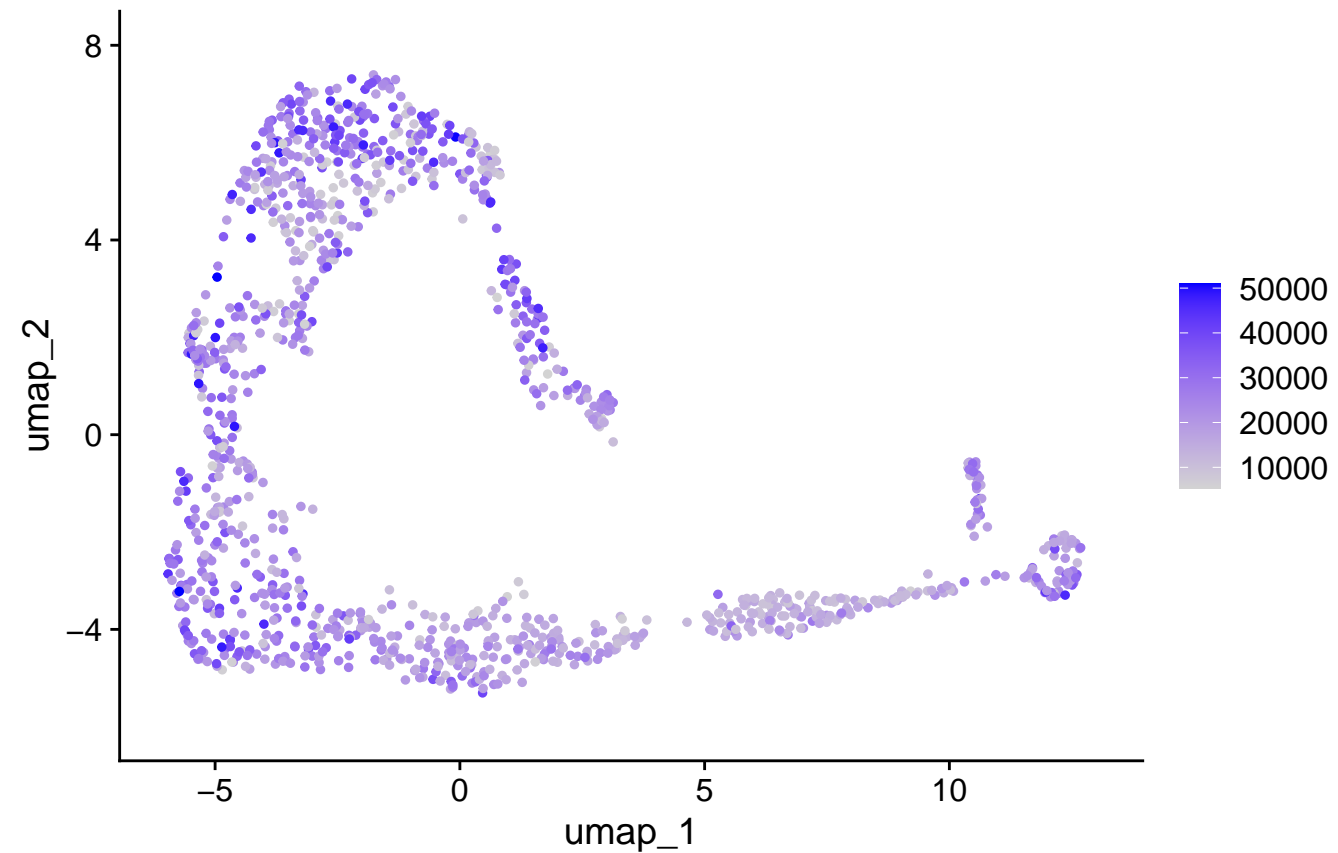
org_3B: Doublets Detected

org_3B: Final UMAP

	DF.classifications	median_nCount	median_nFeature	count
1	Doublet	37923	10079	16
2	Singlet	21408	6897	1200

org_3B – QC Metrics & Cell Cycle on UMAP