

Cell type annotation protocol

To annotate the datasets, the adopted strategy consists in dividing the dataset into several subsets which will correspond to the major cell types.

The entire dataset is first studied to select outliers cells.

This filtered data set is then analyzed again until clusters are obtained allowing the data to be divided into 4 or 5 clusters.

Small clusters that are very far from the others are directly analyzed and the others are grouped into sub-games.

The sub-games are analyzed in the same way.

The resolution allows you to vary the number of clusters. To determine the resolution value to use, we visually study the formed clusters.

Ideally, clusters should not overlap and contain a relatively small number of cells. We privilege a study in 3D in order to ensure the good separation of the clusters.

It is better to have "too many" clusters than "not enough". If we do not have enough clusters, we lose precision on the cell type and the moment of the trajectory

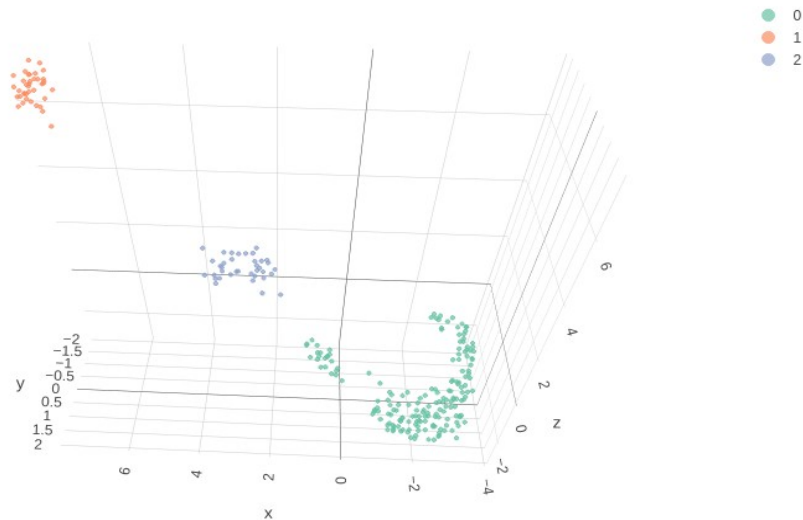


Figure 1: Example of a cluster with too many cells

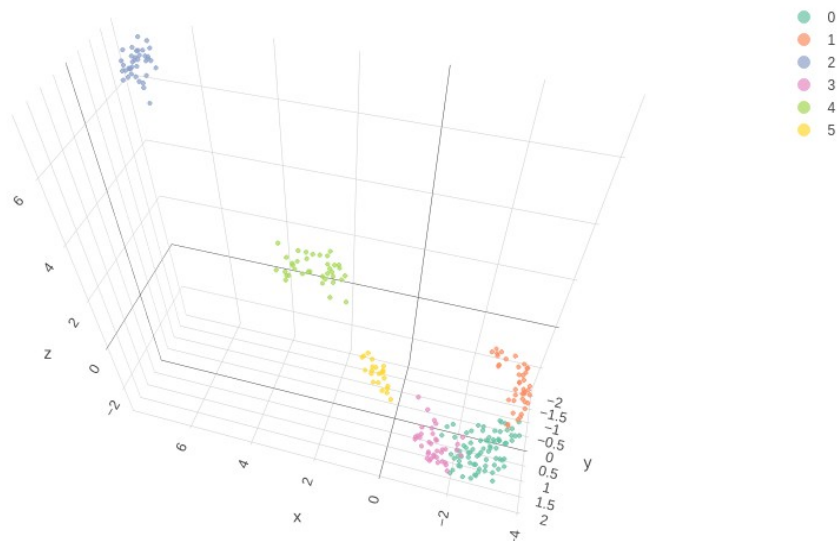


Figure 2: Example of clustering used for annotation