Questionnaire for Data Processing, Analysis, and Interpretation for

10x scRNAseq and/or VDJ

## Project Background: Brief description of the project

## Expected deliverables: Please choose the deliverables below and/or specify any additional items/requirements

Please specify the species below by clicking the checkbox or provide other resource.

|  |  |  |  |
| --- | --- | --- | --- |
| Species | Human (Homo sapiens) | hg38 (GRCh38) (recommend) |  |
| Mouse (Mus musculus) | mm10 (GRCm38) |  |

## Standard deliverables (generated by Cell Ranger):

| **Analysis Item** | | **Y/N** | **If yes, any specific requirements?** |
| --- | --- | --- | --- |
| Single cell gene expression | Sequencing QC |  |  |
| Mapping QC |  |  |
| t-SNE projection colored by UMI counts and clustering |  |  |
| log2FC and p-value by clusters |  |  |
| VDJ analysis | Sequencing QC |  |  |
| VDJ & CDR3 identification |  |  |
| VDJ enrichment, expression, and annotation |  |  |
| Top 10 clonotype frequency and CDR3 sequences |  |  |

### Optional deliverables **(each item is an additional charge and may affect turnaround time, please request specific pricing from team)**:

Generated by using Seurat and other customized in-house pipeline

| **Analysis Item** | | **Y/N** | **If yes, any specific requirements?** |
| --- | --- | --- | --- |
| Single cell gene expression | Violin plots for number of genes, UMIs, and %Mito of each cell QC |  |  |
| Aggregate cellranger results of different samples |  |  |
| t-SNE/UMAP projection colored by interested genes |  |  |
| t-SNE/UMAP projection colored by samples or groups |  |  |
| Cell type annotation in t-SNE/UMAP project |  |  |
| Cell type counts and overlapping analysis |  |  |
| VDJ analysis | Feature and diversity analysis of clonotypes |  |  |
| Overlapping clonotypes among samples |  |  |
| Overlapping analysis between single cell and VDJ T/B cells (counts, highlighting VDJ T/B cells in t-SNE/UMAP projection) |  |  |

## If any other customized data analysis request, please describe below.

Please note that it is not guaranteed to be accepted and might incur additional cost.

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|  |

## References: Please attach and or provide links of the relevant references as per your project