TCE ⚦ SBM

Tulane Center of Excellence Sex-Based Biology & Medicine

Summer Boot Camp

Computational Biology Workshop 1: Single-cell RNA Sequencing Analysis using Seurat

Presented by
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August 10 & 11, 2023 (Thu & Fri), 1-4pm
SOM (Hutchinson) Room 4001

Workshop outline:

Day 1:
- Understanding the concept of scRNAseq and its applications
- Experimental design
- Comparison of library preparation and sequencing platforms
- Overview of single-cell analysis using Seurat
- Installing R and basic syntax

Day 2:
- Data loading/QC/filtering
- Normalization using VST and SC Transform
- Multidimensional reduction and cell clustering- Differential testing framewor
- Visualization
- Pitfalls, caveats, and future topics