Summer Boot Camp

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

Presented by
Fahd Qadir, PhD
Postdoctoral Fellow
Dr. Franck Mauvais-Jarvis Lab
Section of Endocrinology and Metabolism

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 framework
- Visualization
- Pitfalls, caveats, and future topics