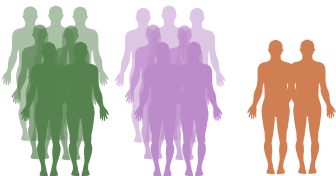**Sample Collection**
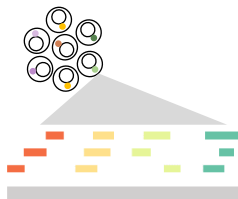
7 LUAD 7 LUSC 2 SCLC

scDNA sequencing
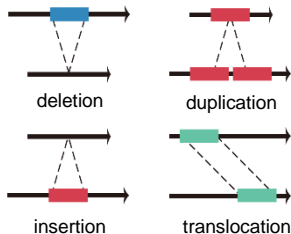
10x Genomics

CNV Calling
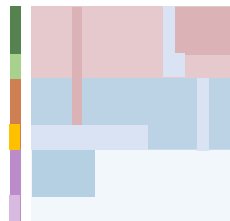
cellranger-dna

SV Calling

deletion duplication

insertion translocation

Evolutionary Analysis

Subclone ● A1 ● A2 ● LX

CSV Analysis

chromothripsis

2 2 6 8 8 4

breakage-fusion-bridge