

# **Supplementary Table S1. Single- cell RNA- seq sample- level QC metrics (post- QC)**

Libraries: Chromium Next GEM Single Cell 3' v3.1; Sequencer: Illumina; Processing: Cell Ranger 7.x; Filtering: genes 200–6,000, UMI > 500, mito < 15%; Doublets removed with DoubletFinder; Normalization: Seurat SCTransform; k- NN k=30; Louvain res=0.4. Medians computed per sample across retained cells.

| Sample ID    | Group      | Chemistry | Retained cells (post- QC) | Median genes/cell | Median UMIs/cell | Median mito % | Doublets removed (%) |
|--------------|------------|-----------|---------------------------|-------------------|------------------|---------------|----------------------|
| 005- oHSV- 1 | oHSV       | 10x v3.1  | 6100                      | 1900              | 5200             | 5.1           | 5.4                  |
| 005- oHSV- 2 | oHSV       | 10x v3.1  | 5800                      | 1950              | 5400             | 5.3           | 5.8                  |
| 005- oHSV- 3 | oHSV       | 10x v3.1  | 5500                      | 1850              | 4800             | 5.6           | 6.1                  |
| 005- oHSV- 4 | oHSV       | 10x v3.1  | 6000                      | 2000              | 5600             | 4.9           | 5.2                  |
| 005- oHSV- 5 | oHSV       | 10x v3.1  | 5700                      | 1920              | 5000             | 5.4           | 5.7                  |
| 005- CD44- 1 | oHSV- CD44 | 10x v3.1  | 4300                      | 1700              | 4300             | 6.4           | 6.0                  |
| 005- CD44- 2 | oHSV- CD44 | 10x v3.1  | 3900                      | 1680              | 4000             | 6.8           | 6.5                  |
| 005- CD44- 3 | oHSV- CD44 | 10x v3.1  | 4500                      | 1750              | 4400             | 6.1           | 5.9                  |
| 005- CD44- 4 | oHSV- CD44 | 10x v3.1  | 3700                      | 1650              | 3800             | 7.2           | 6.6                  |
| 005- CD44- 5 | oHSV- CD44 | 10x v3.1  | 4100                      | 1720              | 4200             | 6.6           | 6.2                  |