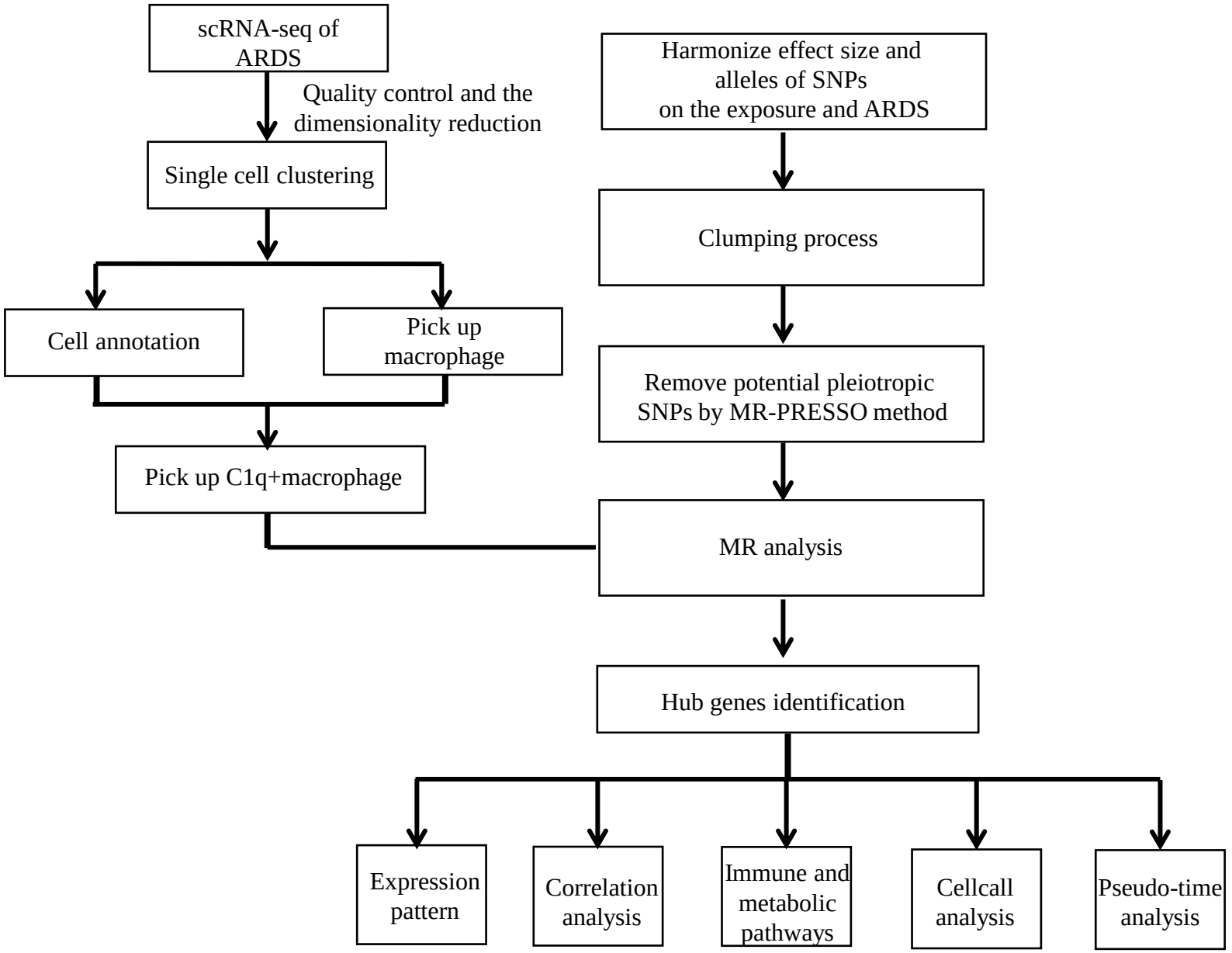

scRNA-seq of ARDS
Quality control and the dimensionality reduction
Single cell clustering
Cell annotation
Pick up macrophage
Pick up C1q+macrophage
Harmonize effect size and alleles of SNPs on the exposure and ARDS
Clumping process
Remove potential pleiotropic SNPs by MR-PRESSO method
MR analysis
Hub genes identification
Expression pattern
Correlation analysis
Immune and metabolic pathways
Cellcall analysis
Pseudo-time analysis