

TCGA-HNSC dataset (499 samples)

12 PCD patterns

ConsensusClusterPlus (C1, C2, C3 and C4)

Genomic heterogeneity analysis

Pathways feature analysis

Immunocharacteristic/
immunotherapy analysis

limma analysis

Univariate COX analysis
LASSO analysis

Clinical feature analysis

Nomogram

Univariate and
multivariable COX analysis

Immunocharacteristic
analysis

4-gene signature

Model evaluation and validation

RT- qPCR, Western blot,
CCK8 assay

GSE65858 dataset (253 samples)

GSE41613 dataset (97 samples)

