Sputum gene expression data in Asthma

- GSE137268 (N=69)
  - 54 AS vs. 15 CTRL

- GSE148004 (N=18)
  - 9 AS vs. 9 CTRL

Eliminate the batch effect

Combined gene expression (N=87, 63 AS vs. 24 CTRL)

- ssGSEA
- limma

Immune cell fraction Assessment for samples

Differentially expressed genes selection

Macrophage related DEGs selection

PPI network construction

- LASSO & RFE

Optimized DEGs selection

Diagnostic model construction and validation

Function enrichment analysis

GSE112260