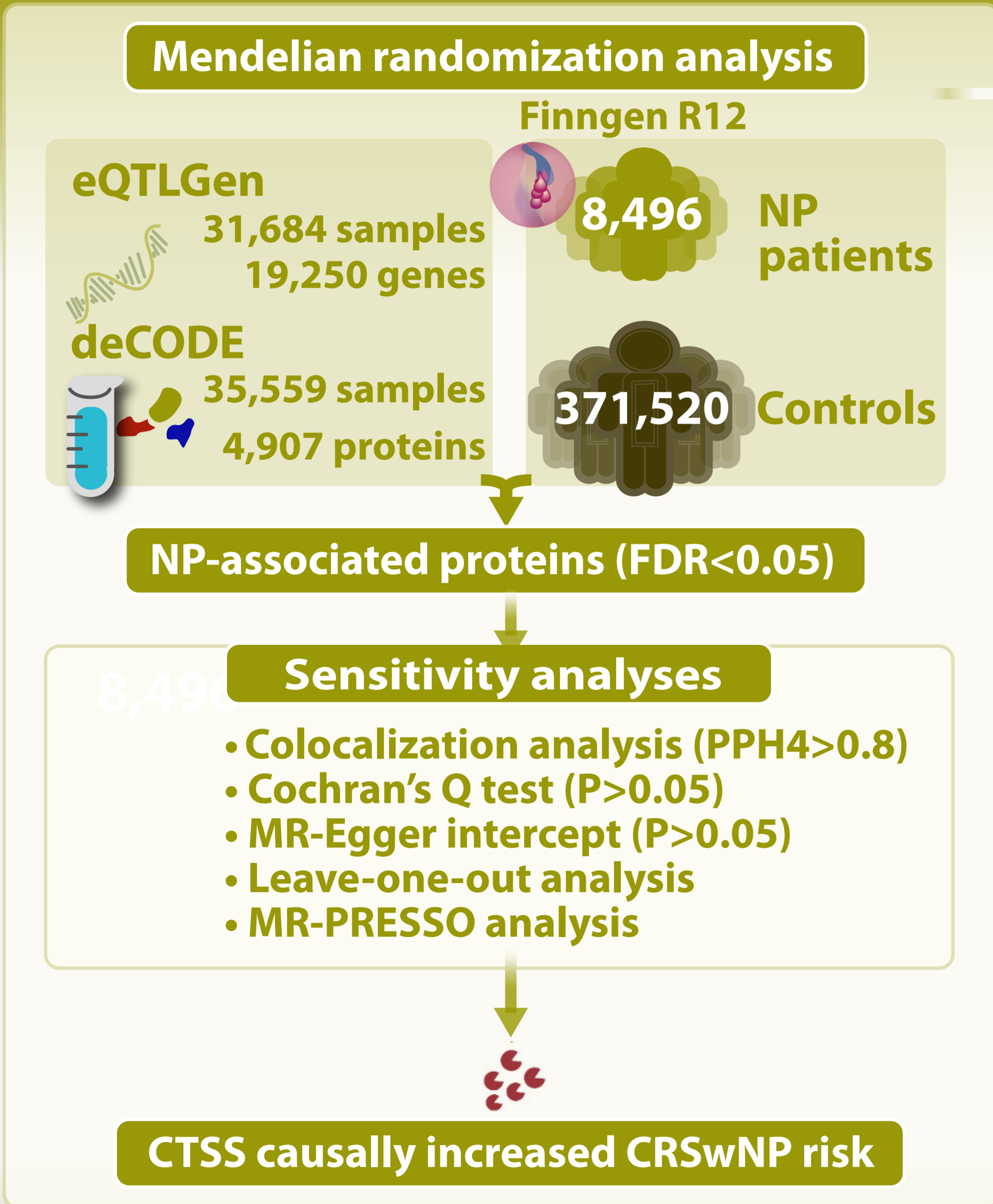


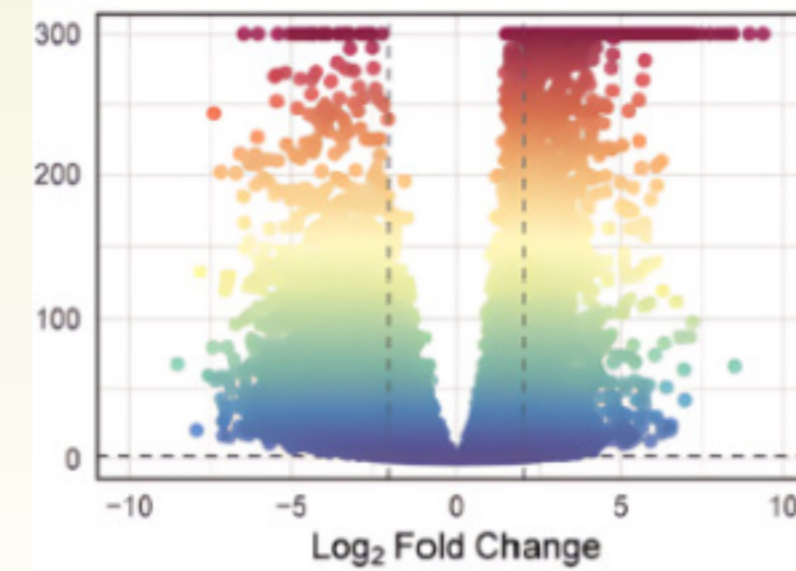
# CTSS as a novel biomarker for tissue remodeling in CRSwNP

Insights from multi-omics research

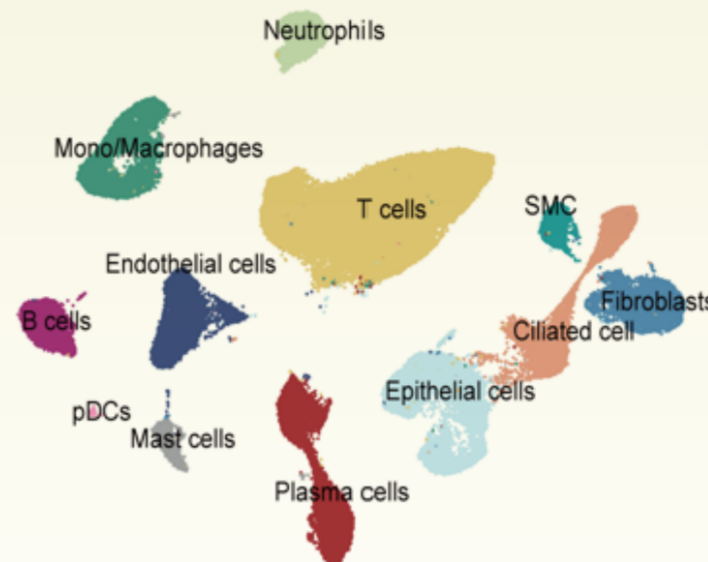


## Omics analysis validation

### Differential expression analysis



### Cellular localization analysis

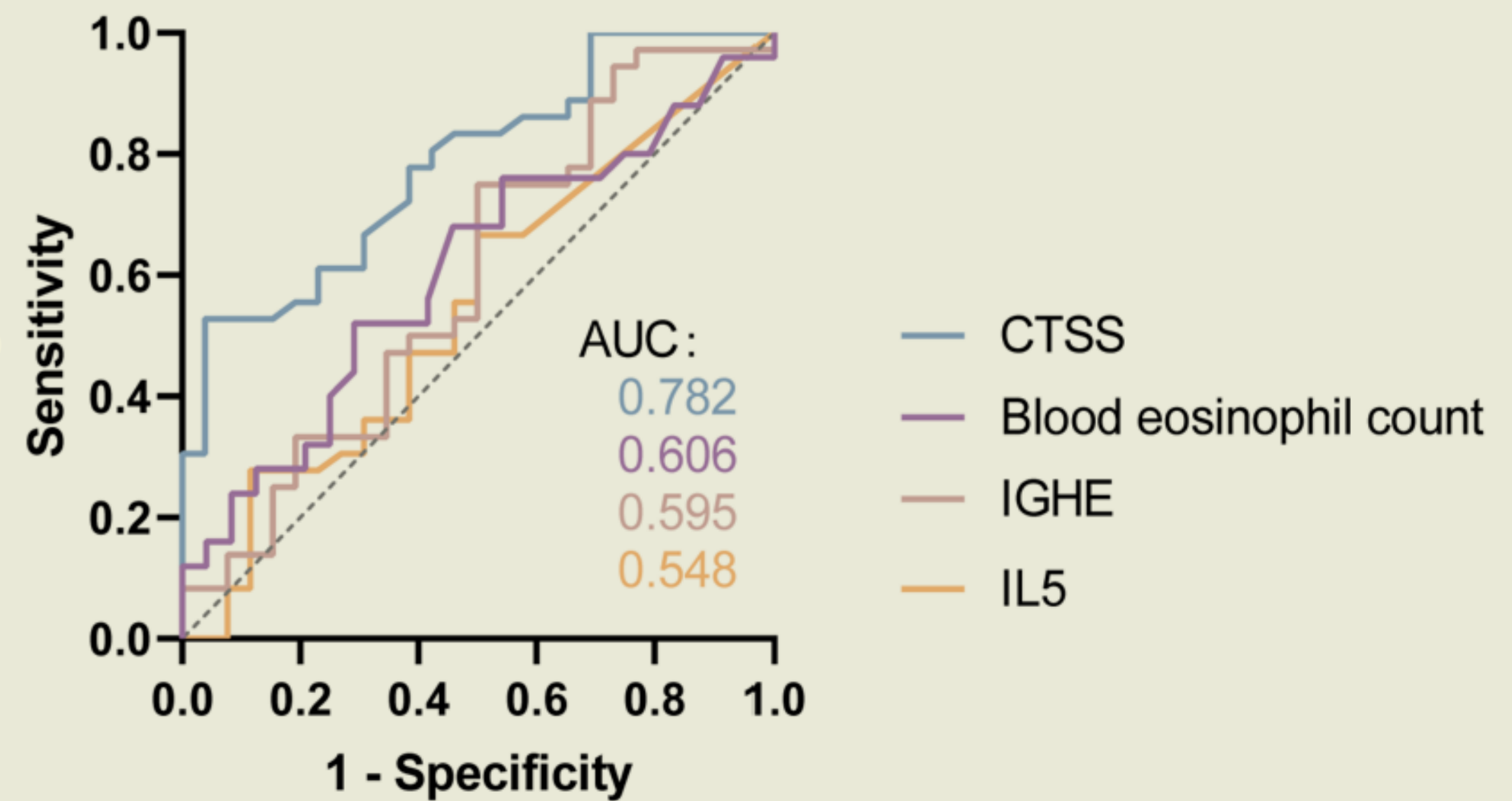


### CTSS functional analysis

## Cathepsin S (CTSS)

Correlated with tissue remodeling pathways

## CTSS was positively correlated with CRSwNP severity



- CTSS is a novel biomarker for CRSwNP
- CTSS upregulation increased the risk of CRSwNP and exacerbated clinical severity