

EXPOSURE

UKB-PPP cis-pQTL

2,923 proteins on panel
1,659 with cis instruments
N = 34,557 (discovery)



OUTCOME & CAUSAL ESTIMATION

FinnGen R13 outcomes

AMD, wet AMD, dry AMD
(separate FDR family from
diabetic complications)

Wald ratio / IVW

F > 10; Steiger filtering
per-outcome BH-FDR < 0.05



ROBUSTNESS & REPLICATION

Colocalisation

HyPrColoc, PP > 0.7
protein inside the cluster

External cohort

IAMDGC (clinically graded)

Platform replication

deCODE SomaScan (34 targets)
SCALLOP cis comparison



MULTI-OMIC SUPPORT

Blood eQTL (eQTLGen)

Blood meQTL (SMR + HEIDI)
Metabolites (Nightingale, Chen)
Retina eQTL (Advani 2024)
LDSC genetic correlation



FUNCTIONAL LOCALISATION

scRNA-seq (GSE230348)

RPE / choroid localisation
per-sample pseudobulk DE
bulk DEG (limma) + GSEA
Tissue: NSR vs RPE (n = 359)

Prioritised causal and druggable targets → cell and zebrafish validation