

Description of Additional Supplementary Files

Supplementary Data S1: Description of three primary analyses

Supplementary Data S2: Genetic correlation across three strabismus phenotypes

Supplementary Data S3: Evaluations of inflations/deflations of GWAS meta-analyses

Supplementary Data S4: Comparison of lead SNPs from GWAS meta-analyses

Supplementary Data S5: PheWAS results of strabismus lead SNPs

Supplementary Data S6: PheWAS results of esotropia lead SNPs

Supplementary Data S7: PheWAS results of exotropia lead SNPs

Supplementary Data S8: Genetic correlation between strabismus and myopia

Supplementary Data S9: mtCOJO Results for strabismus, esotropia and exotropia

Supplementary Data S10: Results of strabismus eQTL mapping

Supplementary Data S11: Results of Mendelian randomisation using a multiple SNP instrument for smoking behaviour