**Supplementary Data:**

Supplementary Data 1. GWAS hits for corneal curvature by age group

Supplementary Data 2. Annotation and function characterization of variants in LD at the 41 loci

Supplementary Data 3. Association of corneal curvature SNPs with axial length and spherical equivalent

Supplementary Data 4. Significant pathways enriched using VEGAS

Supplementary Data 5. Significant pathways enriched for implicated corneal curvature genes using g:Profile

Supplementary Data 6. Expression of genes at 41 loci in the ocular tissue database

Supplementary Data 7. eQTL queries using GTEx gene expression in various tissues

Supplementary Data 8. Summary association statistical results that support the findings of this study.