

**Supplementary Table SI.** Detailed information on used studies

Exposure	Participants included in analysis	Sex	IVs	Genome-wide significance level	Sources
Left eye myopia	29,317 European-descent individuals	Males and Females	13	$p \leq 5 \times 10^{-6}$	UK Biobank
Right eye myopia	29,317 European-descent individuals	Males and Females	23	$p \leq 5 \times 10^{-6}$	UK Biobank
Glaucoma	462,933 European-descent individuals	Males and Females	47	$p \leq 5 \times 10^{-6}$	UK Biobank
Cataract	463,010 European-descent individuals	Males and Females	29	$p \leq 5 \times 10^{-5}$	UK Biobank
Diabetic retinopathy	216,666 European-descent individuals	Males and Females	17	$p \leq 5 \times 10^{-6}$	FinnGen
Presbyopia	460,536 European-descent individuals	Males and Females	47	$p \leq 5 \times 10^{-6}$	UK Biobank
Peripheral retinal degeneration	203,428 European-descent individuals	Males and Females	9	$p \leq 5 \times 10^{-6}$	FinnGen
Age-related macular degeneration	209,122 European-descent individuals	Males and Females	31	$p \leq 5 \times 10^{-6}$	FinnGen
AIS	446,696 European-descent individuals	Males and Females	48	$p \leq 5 \times 10^{-6}$	The MEGASTROKE consortium
CES	446,696 European-descent individuals	Males and Females	39	$p \leq 5 \times 10^{-6}$	The MEGASTROKE consortium
LAS	446,696 European-descent individuals	Males and Females	37	$p \leq 5 \times 10^{-6}$	The MEGASTROKE consortium
SVS	446,696 European-descent individuals	Males and Females	34	$p \leq 5 \times 10^{-6}$	The MEGASTROKE consortium