Understanding Variation in Human Retinal Morphology Using UK Biobank Data
Prospective cohort study
22 centres
Eye measures $N = 110,000$
The Eye
Layers of the Retina
Imaging the Macula
The Retina
Phenotype

- Eye can be split into grid or bullseye
- Have layer thicknesses for different layers of retina calculated by Topcon (industry standard) software
- Either 5 layers or 7 layers depending on segmentation
- Start by looking at GCC across the whole retina
Quality Control

67344
-17

• Removal of Topcon incorrect ids

67327
-1817

• Removal of samples with missing data

65510
-23,228

• Removal of samples with outliers in Topcon values

42282
GWAS
Principal Components
Future work
UK Biobank Eye and Vision Consortium

UK Biobank Eye & Vision Consortium
3rd Annual Meeting

www.ukbiobankeyeconsortium.org.uk
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