

SUPPLEMENTARY DATA

Supplementary Figure 1

Retinal layer segmentation of normal eyes using Heidelberg Spectralis and Orion software

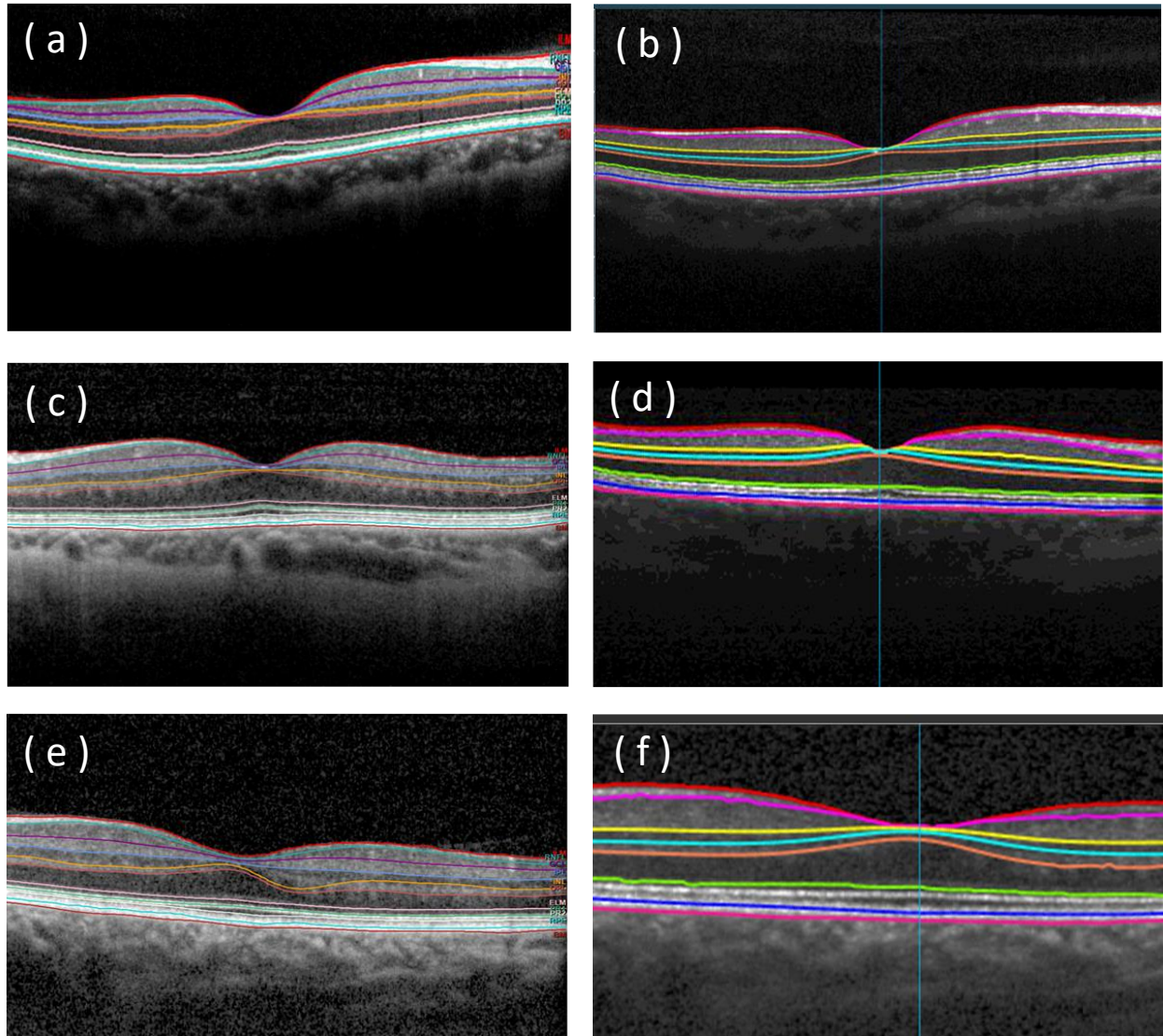


Figure 1. (a) Heidelberg with no errors (b) Orion with no errors (c) Heidelberg with mild errors (d) Orion with mild errors (e) Heidelberg with moderate segmentation errors (f) Orion with moderate segmentation errors.

Supplementary Figure 2

Retinal layer segmentation of eyes with intermediate dry age-related using Heidelberg Spectralis and Orion software

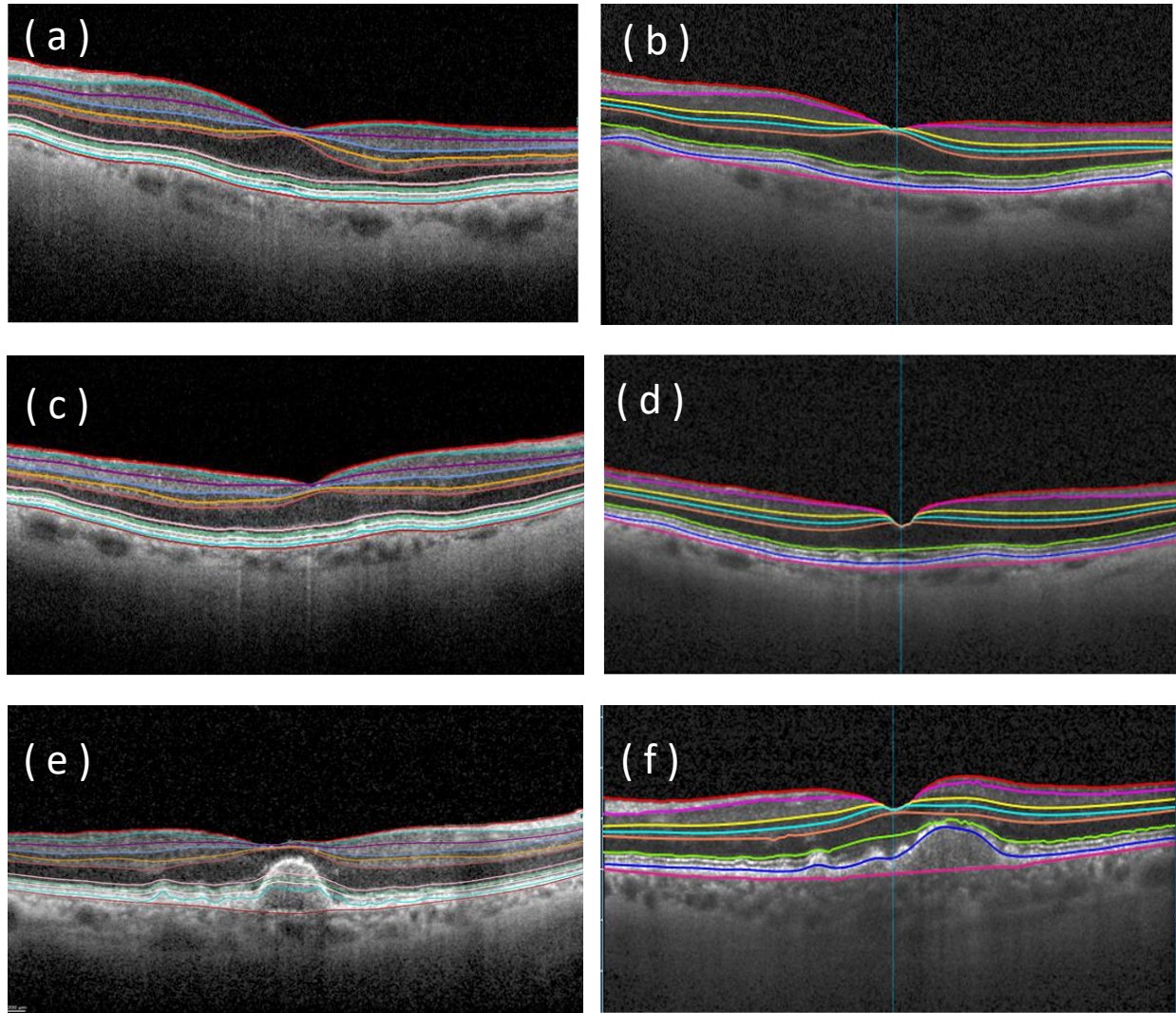


Figure 2. (a) Heidelberg with no errors (b) Orion with no errors (c) Heidelberg with mild errors (d) Orion with mild errors (e) Heidelberg with moderate segmentation errors (f) Orion with moderate segmentation errors.

Supplementary Figure 3

Retinal layer segmentation of diabetic macular edema eyes using Spectralis and Orion software.

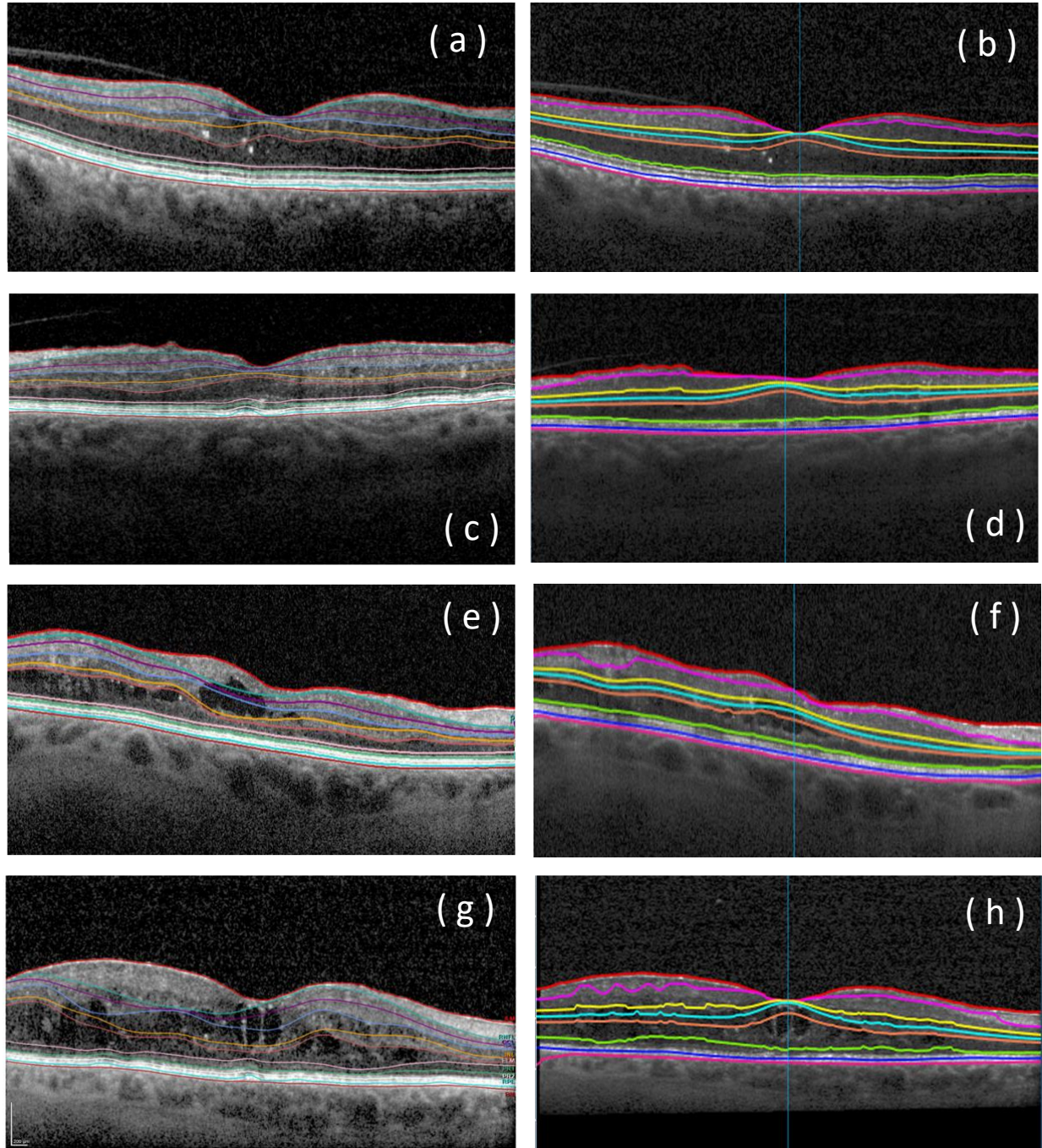
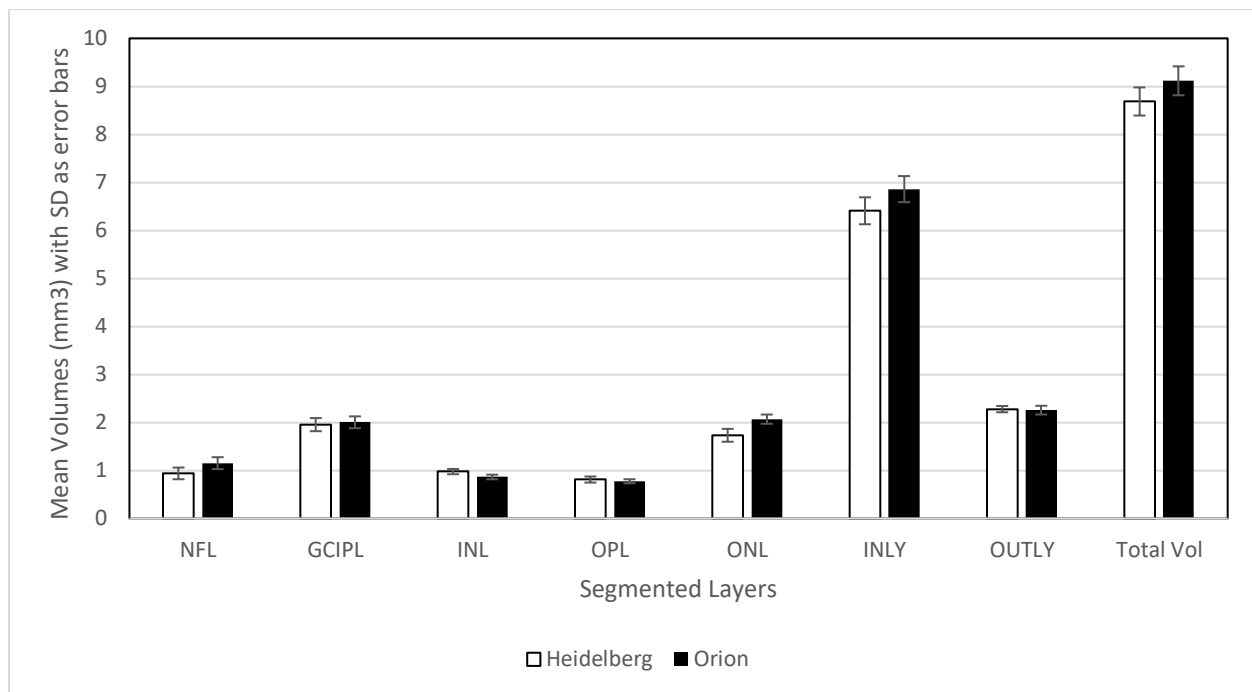


Figure 3. (a) Heidelberg with no errors (b) Orion with no errors (c) Heidelberg with mild errors (d) Orion with mild errors (e) Heidelberg with moderate segmentation errors (f) Orion with moderate segmentation errors (g) Heidelberg with severe segmentation errors (h) Orion with severe segmentation errors.

Supplementary Figure 4

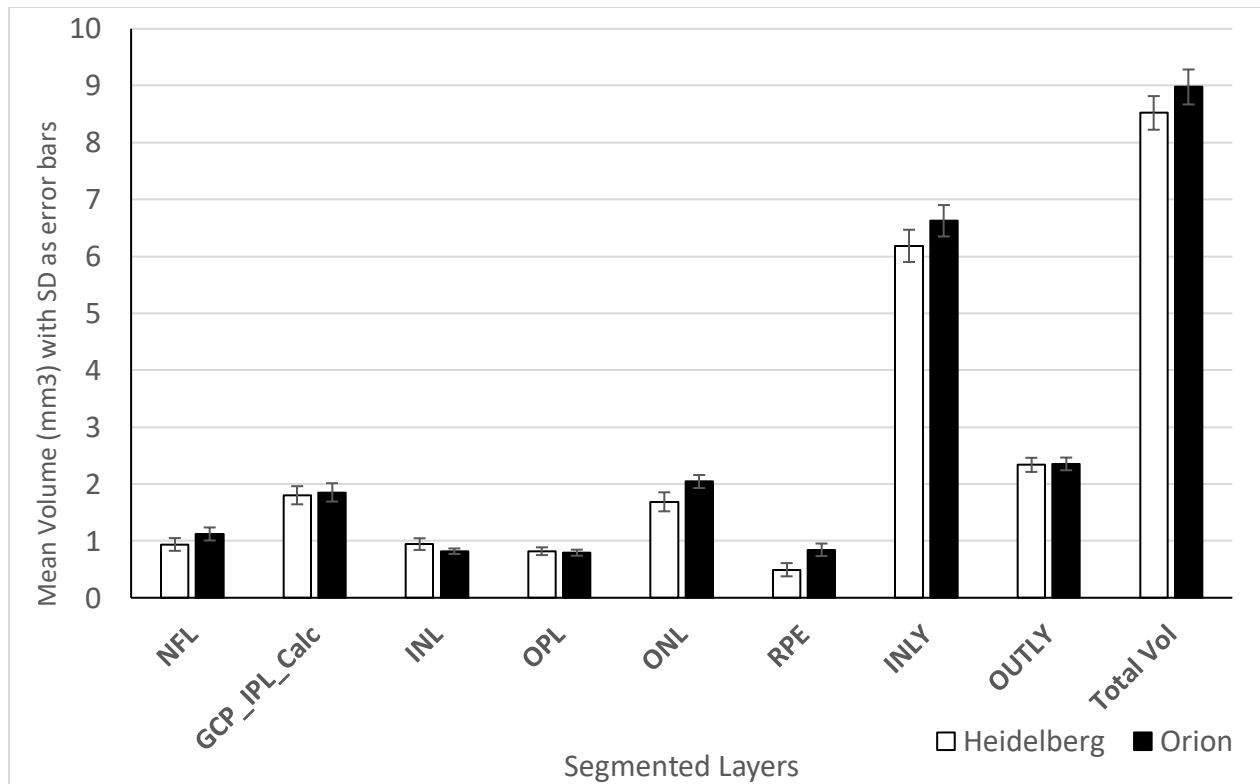
Comparison of segmented retinal layer volumes in normal eyes using Heidelberg Spectralis and Orion software



INLY- Inner retinal layers in total, OUTLY- Outer retinal layers in total

Supplementary Figure 5

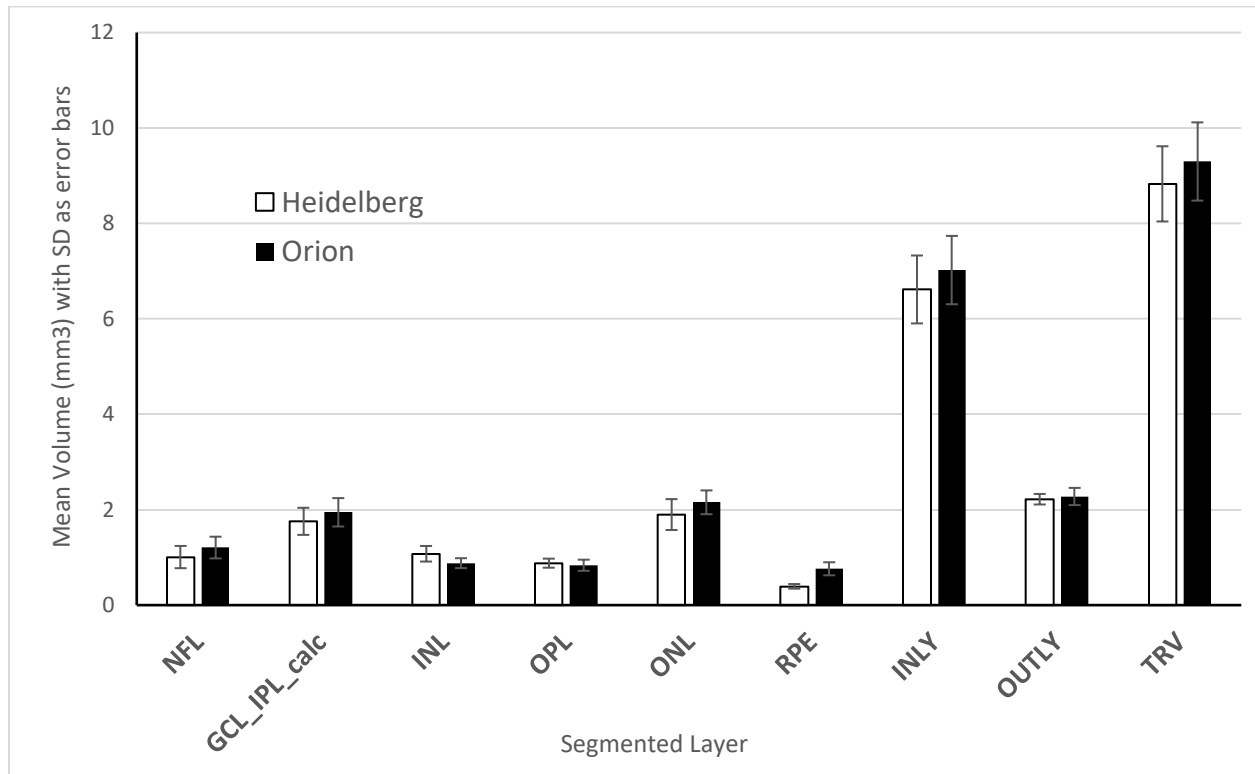
Comparison of segmented retinal layer volumes in intermediate dry age-related macular degeneration eyes using Heidelberg Spectralis and Orion software



INLY- Inner retinal layers in total, OUTLY- Outer retinal layers in total

Supplementary Figure 6

Comparison of segmented retinal layer volumes in diabetic macular edema patients using Heidelberg Spectralis and Orion software



TRV- Total retinal volume, INLY- Inner retinal layers in total, OUTLY- Outer retinal layers in total

Supplementary Table 1

Qualitative comparison of Spectralis and Orion retinal segmentations, with manual grading, in normal, intermediate dry age-related macular degeneration and diabetic macular edema eyes.

Normal		
Layer	Observed Agreement	Weighted Kappa
NFL	0.53	0.32
GCIPL	0.82	0.31
INL	0.80	0.33
OPL	0.91	0.33
ONL	0.91	0.30
Average	0.80	0.32
AMD		
Layer	Observed Agreement	Weighted Kappa
NFL	0.73	0.40
GCIPL	0.76	0.13
INL	0.73	0.36
OPL	0.85	0.59
ONL	0.58	0.32
Average	0.73	0.36
DME		
Layer	Observed Agreement	Weighted Kappa
NFL	0.43	0.25
GCIPL	0.47	0.19
INL	0.23	0.13
OPL	0.33	0.18
ONL	0.40	0.21
Average	0.37	0.19

Supplementary Table 2

Intergrader agreement in Normal, Intermediate dry AMD and DME eyes

NORMAL - HEIDELBERG		
Layer	Observed Agreement	Weighted Kappa
NFL	0.76	0.33
GCIPL	0.58	0.31
INL	0.73	0.34
OPL	0.84	0.31
ONL	0.87	0.33
Average	0.76	0.32
NORMAL - ORION		
Layer	Observed Agreement	Weighted Kappa
NFL	0.91	0.54
GCIPL	0.93	0.33
INL	0.98	0.33
OPL	0.76	0.33
ONL	0.91	0.33
Average	0.90	0.38
AMD - HEIDELBERG		
Layer	Observed Agreement	Weighted Kappa
NFL	0.39	0.12
GCIPL	0.70	0.32
INL	0.41	0.27
OPL	0.61	0.26
ONL	0.70	0.50
Average	0.56	0.29
AMD - ORION		
Layer	Observed Agreement	Weighted Kappa

NFL	0.61	0.27
GCIPL	0.88	0.73
INL	0.85	0.56
OPL	0.70	0.35
ONL	0.69	0.61
Average	0.74	0.51
DME - HEIDELBERG		
Layer	Observed Agreement	Weighted Kappa
NFL	0.63	0.66
GCIPL	0.60	0.58
INL	0.70	0.68
OPL	0.43	0.46
ONL	0.30	0.38
Average	0.53	0.55
DME - ORION		
Layer	Observed Agreement	Weighted Kappa
NFL	0.67	0.50
GCIPL	0.73	0.54
INL	0.63	0.21
OPL	0.46	0.09
ONL	0.40	0.19
Average	0.58	0.30