Supplementary information

The *App*$^{NL-G-F}$ mouse retina is a site for preclinical Alzheimer's disease diagnosis and research

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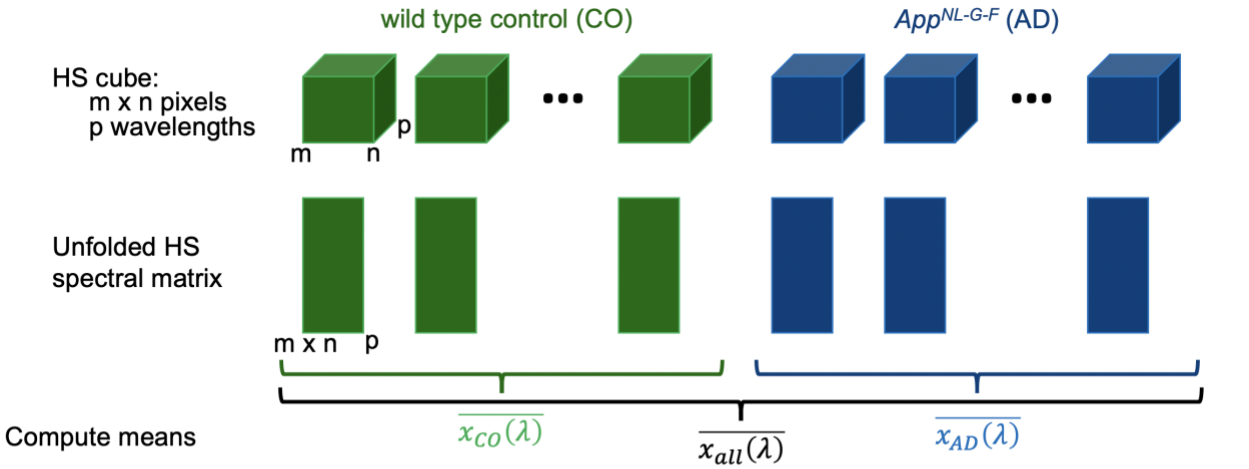
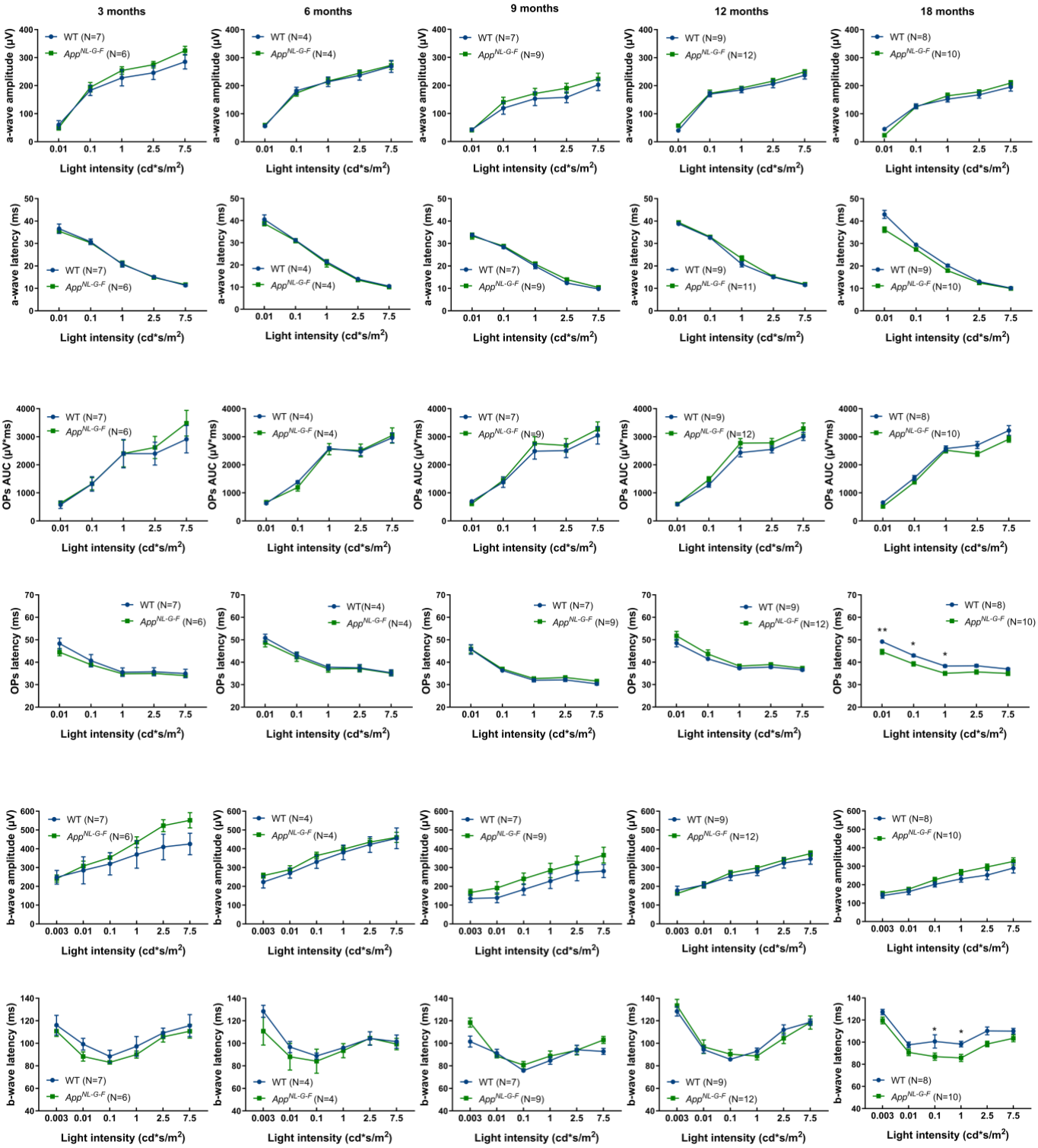


Supplementary figure 1. Schematic overview of the hyperspectral imaging data analysis. Spectral data from all mice were stacked in a matrix and a corresponding class label (AD or wild type control [CO]) was given for each entry. The between class covariance spectrum was calculated. This spectrum corresponds to the average spectral difference between AD and CO groups. The hyperspectral score for a given spectral pixel was obtained by calculating the dot product between its spectral data and the between class covariance spectrum. The average spectral score for a given mouse was calculated using all pixels of all the HS images collected for that retina.


3 months
6 months
9 months
12 months
18 months
a-wave amplitude (μV)
a-wave latency (ms)
OPs AUC (μV*ms)
OPs latency (ms)
b-wave amplitude (μV)
b-wave latency (ms)
Light intensity (cd*s/m2)
WT (N=7)
App NL-G-F (N=6)
WT (N=4)
App NL-G-F (N=4)
WT (N=7)
App NL-G-F (N=9)
WT (N=9)
App NL-G-F (N=12)
WT (N=8)
App NL-G-F (N=10)
App NL-G-F (N=11)
WT(N=4)
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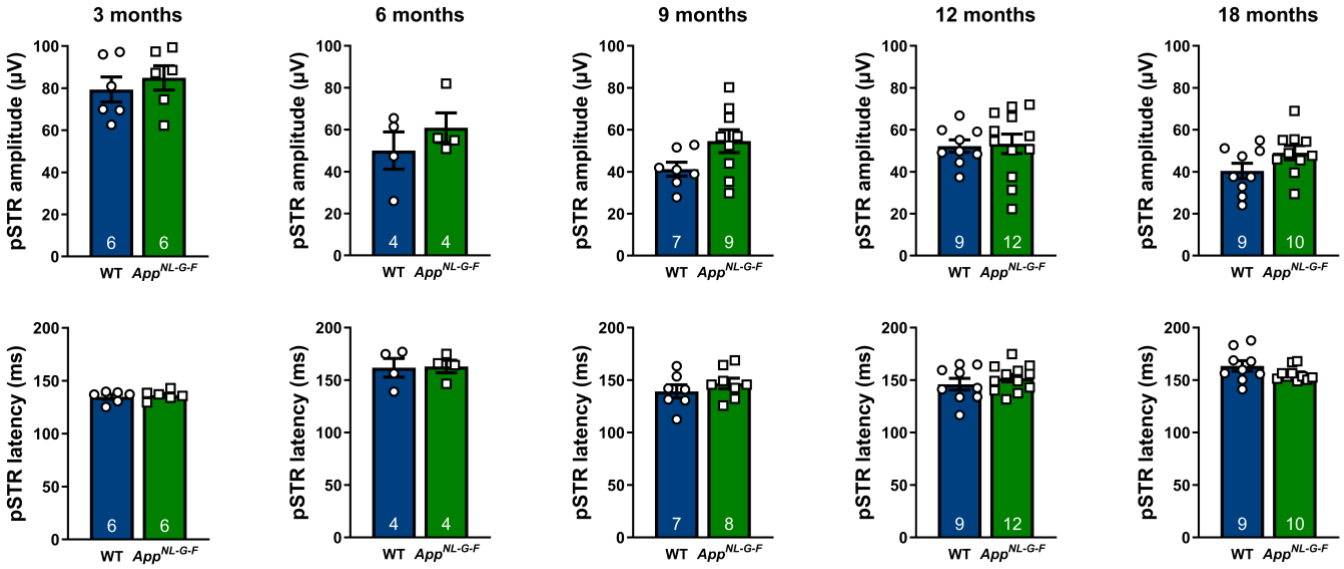

Supplementary figure 2. Electroretinogram measurements in *App*$^{NL-G-F}$ mice. Electroretinogram measurements were carried out in both *App*$^{NL-G-F}$ and WT mice at 3,6,9,12 and 18 months of age. Data are depicted as mean ± SEM; n=4-12 per group.