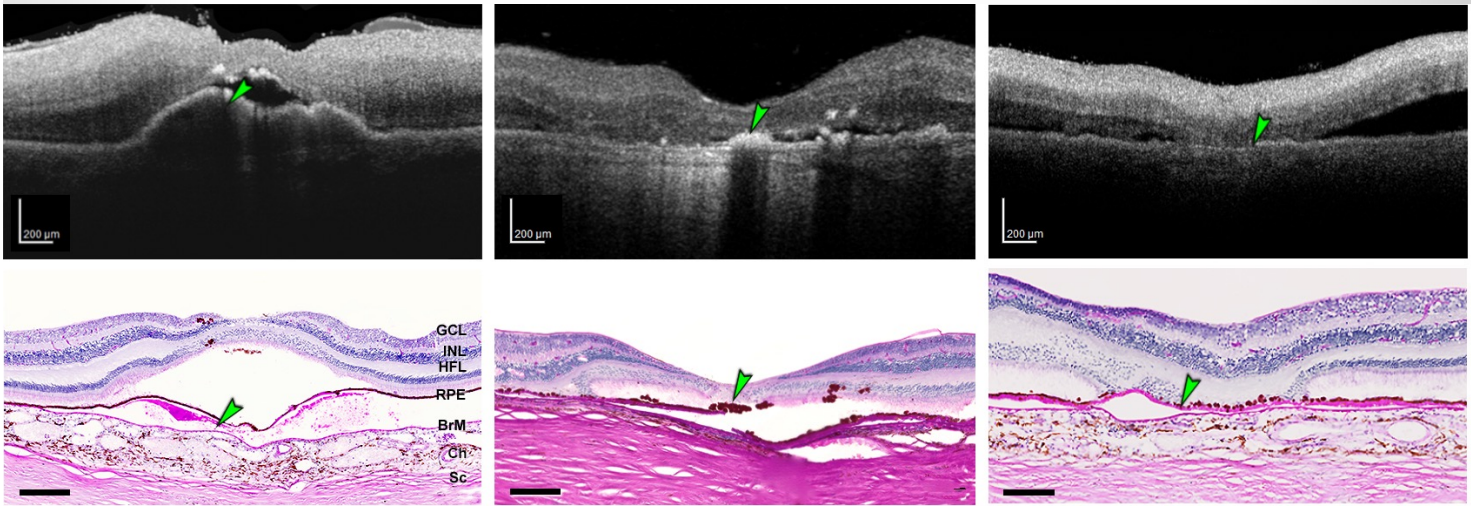
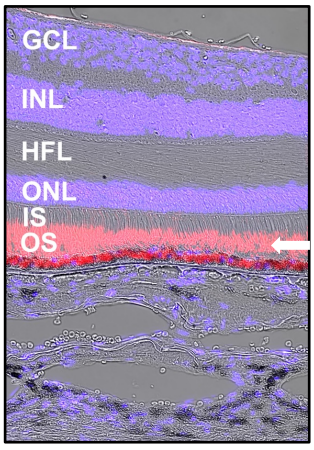
On-Demand AMD Histology Slides

Introducing PRECISION OCULAR BIOBANK
Curcio Collection AMD Slide Sets



Now you can order human post-mortem AMD retinal sections & receive them within a week! *No more waiting to get the data you need!*

Advancing Sight Network together with Christine A. Curcio PhD have developed standardized sets of cryo-sectioned retinal sections for research**, The Precision Ocular Biobank – Curcio Collection AMD Slide Sets.** Each set contains sections from 15 donor eyes with **AMD** visible in *ex vivo* OCT (including **drusen, hyperreflective foci and atrophy**) and 5 donors with no visible or known retinal disease (controls). Each set contains approximately 60 slides and comes with de-identified medical and demographic information on all donors. Recipients will receive representative *ex vivo* OCT scans, images of reference sections (PASH/ H&E), fundus photos and a summary pathology report.



IHC: Fit-For-Purpose

Our slides are designed to be used in immunohistochemistry experiments right out of the box. Photomicrographs on the left show fluorescence-labeled rhodopsin (white arrow), overlaid with differential interference contrast image. **Localize your target of interest with confidence in these expertly prepared slides**.

Email us, and we will get back to you within one business day!

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Research@advancingsight.org

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Advantages of AMD Research-in-a-(slide)Box

	Curcio Collection AMD Slide Set	Other Eye Bank Whole Eyes	Other Slide Offerings
Death to Processing time A short interval is essential to maintain retinal attachment and reduce post-mortem autolysis.	✓ < 6 Hours	✗ > 12 Hours	✗ < 24 hours
Availability Immediately available for use, unlike prospective AMD tissue recovery, which can take months to years.	✓ Immediately	✗ Months to years	✗ Only Individual Slides Available
Validated AMD Tissue AMD diagnosis and staging using ex vivo OCT to visualize retinal layers.[6]	✓ Confirmed	✗ Not Confirmed	✗ Not Post-Mortem OCT confirmed
Ready for Data Reporting Everything needed for IHC studies in one set for an immediate start on statistically significant data.[8,9,10]	✓ Significant Results	✗	✗

8,9,10 Sample size based on power analysis of RPE dysmorphia using a cellular phenotyping system.

1. De-Giorgio F. Leg Med (Tokyo). 2021. 33610931. 2. Trabzuni D. J Neurochem. 2011. 21848658. 3. Malik KJ. Invest Ophthalmol Vis Sci. 2003. 12766080. 4. Kallestad L. Scientific Reports. 2019. 31616038. 5. Pow DV. Brain Res. 1994. 7982053. 6. Messinger JD. J Vis Exp. 2023. 37306417. 7. Curcio CA. Invest Ophthalmol Vis Sci. 2024. 38466281. 8. Simon R. Invest Ophthalmol Vis Sci. 2022. 36469025. 9. Zanzottera EC. Invest Ophthalmol Vis Sci. 2015. 25813989. 10. Zanzottera EC. Invest Ophthalmol Vis Sci. 2015. 26024109.

Human donor eyes were collected, characterized, and prepared for immunohistochemistry by J.D. Messinger DC (Curcio lab since 2007). All were preserved ≤6 hours from death by immersion in 4% paraformaldehyde, 0.1 M phosphate buffer after removal of cornea/ lens/ iris (stored in 1% paraformaldehyde). *Ex vivo* fundus imaging includes OCT, color, near-infrared reflectance, and autofluorescence. Cryosections (2/slide) are 12 µm thick, ≥ 20 mm long, parallel to horizontal meridian, through fovea and perifovea, collected on SuperFrost slides (positively charged, borosilicate glass, 1 mm thick, subbed with poly-L-lysine). Sample size based on power analysis of RPE dysmorphia (Simon et al, IOVS 2022; 63:5).

Christine A. Curcio PhD, a neuroscientist by training, has made seminal contributions to the anatomic and molecular pathobiology of age-related macular degeneration (AMD), which degrades central vision in aged adults worldwide. Using tools of digital histology, her lab has made important discoveries about the composition and role of drusen deposits in human AMD while also identifying hallmarks such as early loss of rod photoreceptors, gliosis, and RPE transdifferentiation. Her microscopy studies support multiple clinical diagnostic techniques, including optical coherence tomography, autofluorescence, adaptive optics, and rod-mediated dark adaptation.

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