

## **The Power of Multi-Modal Research: Seven Studies** **Published in January '25 Incorporating Data from** **MICRON<sup>®</sup> Imaging Systems for Retinal Insights**

### **January 2025 Papers**

We're excited to share links to 7 recent papers in our growing library. These papers highlight research related to nAMD, Uveitis, Alzheimer's Disease, Dry Eye Disease and Diabetic Retinopathy. The research leveraged fundus imaging, laser-induced CNV, Focal ERG and OCT capabilities of the MICRON<sup>®</sup> system.

We think you'll find the work from these researchers of interest. Enjoy!

- Muniyandi, Anbukkarasi, et al. "**Ref-1 Is Overexpressed in Neovascular Eye Disease and Targetable with a Novel Inhibitor.**" *Angiogenesis*, vol. 28, no. 1, 2025, p. 11, <https://doi.org/10.1007/s10456-024-09966-0>.
- Merzbach, Shira, et al. "**Anti-Inflammatory Effects of Clarstatin, a Shared-Epitope-Antagonistic Cyclic Peptide, on Experimental Autoimmune Uveitis in Mice.**" *Investigative Ophthalmology & Visual Science*, vol. 66, no. 1, 2025, p. 13, <https://doi.org/10.1167/iovs.66.1.13>.
- Corti, Federico, et al. "**Anti-Syndecan 2 Antibody Treatment Reduces Edema Formation and Inflammation of Murine Laser-Induced CNV.**" *Translational Vision Science & Technology*, vol. 14, no. 1, 2025, p. 10, <https://doi.org/10.1167/tvst.14.1.10>.
- Wang, Yan, et al. "**Age- and Sex-Specific Regulation of Serine Racemase in the Retina of an Alzheimer's Disease Mouse.**" *Investigative Ophthalmology & Visual Science*, vol. 66, no. 1, 2025, p. 36, <https://doi.org/10.1167/iovs.66.1.36>.
- Wei, Yankai, et al. "**S100A8/Ag Promotes Dendritic Cell-Mediated Th17 Cell Response in Sjögren's Dry Eye Disease by Regulating the Acod1/STAT3 Pathway.**" *Investigative Ophthalmology & Visual Science*, vol. 66, no. 1, 2025, p. 35, <https://doi.org/10.1167/iovs.66.1.35>.
- Oliveira, Sara, et al. "**Retinal OCT-Derived Texture Features as Potential Biomarkers for Early Diagnosis and Progression of Diabetic Retinopathy.**" *Investigative Ophthalmology & Visual Science*, vol. 66, no. 1, 2025, p. 7, <https://doi.org/10.1167/iovs.66.1.7>.
- Xu, Weixing, et al. "**CAMK2D and Complement Factor I-Involved Calcium/Calmodulin Signaling Modulates Sodium Iodate-Induced Mouse Retinal Degeneration.**" *Investigative Ophthalmology & Visual Science*, vol. 66, no. 1, 2025, p. 63, <https://doi.org/10.1167/iovs.66.1.63>.

## The Power of Multi-Modal Research: Seven Studies in January Utilizing the Phoenix MICRON<sup>®</sup> for Retinal Insights

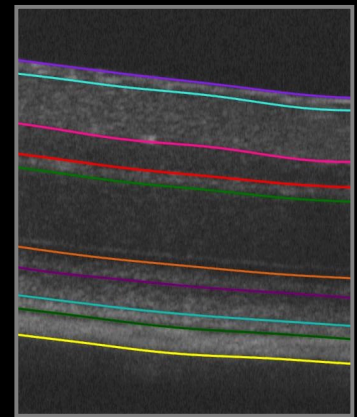
### MICRON Product Family

The MICRON platform delivers seven essential modalities in a compact footprint, backed by world-class service. The platform is ideal for the exacting data capture and physical space requirements of small animal research labs.

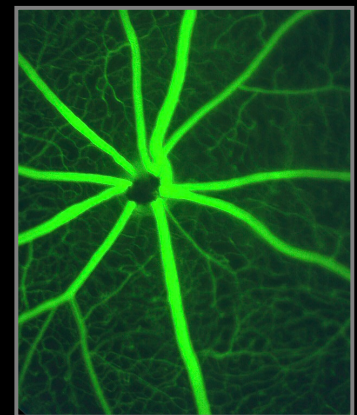
- 1. Fundus:** Color and fluorescent fundus imaging with a resolution below  $3\mu$
- 2. Image Guided OCT:** Image-guided optical coherence tomography (OCT), presenting and capturing a paired color or fluorescent fundus image and OCT cross section, with an axial OCT resolution below  $2\mu$
- 3. Anterior Segment Imaging:** A slit lamp attachment designed for the rodent eye that delivers white light and cobalt blue anterior segment imaging with a resolution below  $4\mu$
- 4. OCT image Segmentation:** Software calibrated specifically for the rodent anatomy (unlike competitors that repurpose software designed for human anatomy)
- 5. Laser:** Image-guided laser to easily and precisely introduce and document laser photocoagulation to generate choroidal neovascularization (CNV)
- 6. Focal ERG:** Image-guided focal ERG with infrared light guidance for testing dark-adapted animals, to sample the ERG response of precisely located retinal positions
- 7. Ganzfeld Full-field ERG:** The MICRON product family includes a Ganzfeld full-field ERG system optimized for the unique retinal response of rodent photoreceptors, including specific capability to excite S-Cones, M-Cones, and rods



Fundus Imaging



OCT Layer Segmentation



Fluorescein Angiography