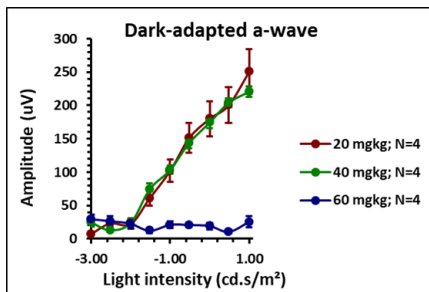# POWERED RESEARCH

Sodium Iodate-Induced Retinal Degeneration

This model shows quantitative differences in retinal pigment epithelium (RPE) and/or neurosensory retina neuroprotection with structural (OCT), functional (ERG), histology, and immunofluorescence endpoints. Offered in mice, rats and rabbits.
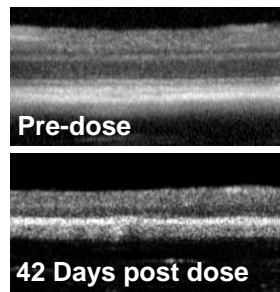
Model Highlights

- ✓ Immunofluorescence, OCT measurement of ONL thickness and ERG analysis of a-, b- and c-wave amplitudes are primary endpoints for analysis of photoreceptor and RPE protection
- ✓ TUNEL combined with markers for specific retinal layers on cryosections shows location of and quantifies apoptotic cells
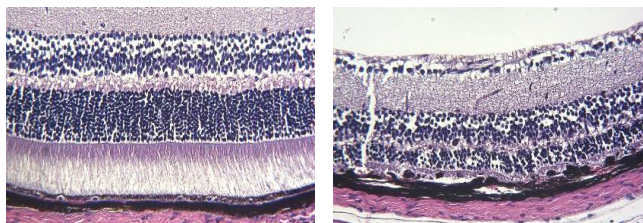- ✓ RPE choroid flat mount lesion area analysis is a quantitative endpoint for RPE loss
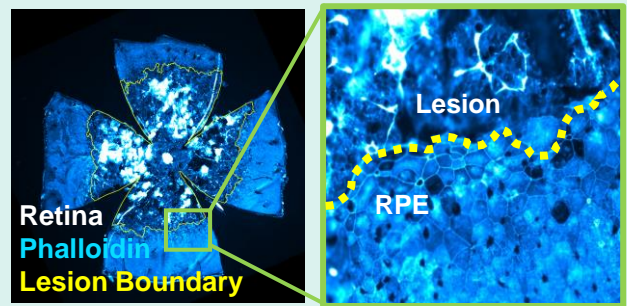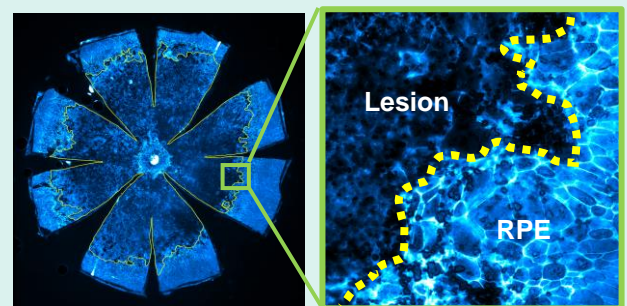
ERG

Dark-adapted a-wave

Amplitude (uV) vs Light intensity (cd.s/m²)

- 20 mgkg; N=4
- 40 mgkg; N=4
- 60 mgkg; N=4

OCT

Pre-dose

42 Days post dose

Histopathology

Flat Mount Lesion Area Analysis

Mouse

Retina
Phalloidin
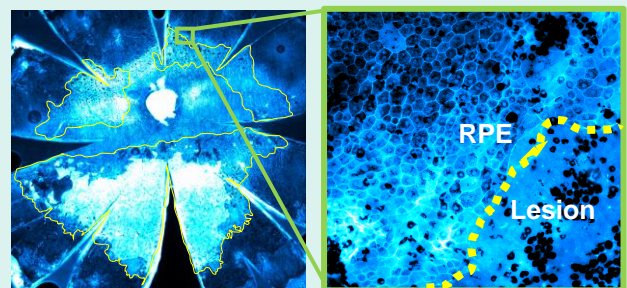Lesion Boundary

Lesion
RPE

Rat

Lesion
RPE

Rabbit

RPE
Lesion

Our Team

Studies are led by our specialized team with decades of experience
Dr. David Culp, Senior Vice President, and Dr. Brian Gilger, Board-Certified Veterinary Ophthalmologist

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