

Dry Age-Related Macular Degeneration (dAMD) / Geographic Atrophy (GA)

Dry AMD separates itself from wet AMD by lacking any vascular involvement in its pathological course. The loss of RPE cells in dry AMD progresses to its most severe manifestation - geographic atrophy (GA), where well-defined, geographic areas of atrophy develop in the macula, stealing central vision. In the past year, we have seen hopes on the horizon with complement inhibitors approved for slowing GA progression. Although not ideal, they offer much needed hope in developing better treatments for dry AMD/GA. Our study directors at PharmaLegacy have a long history of investigating complement and dry AMD. As a multi-factorial disease, dry AMD/GA efficacy studies often require careful design, to suite different treatment strategies and therapeutic targets.

MODELS / SERVICES	Mouse	Rat	Rabbit	NHP	In vitro
Blue Light/White Bright Light-induced retinopathy	●	●			
Sodium Iodate induced retinal degeneration	●	●			
MNU-induced retinal degeneration	●	●			
Oxidative stress induced geographic atrophy	●			●	
In vivo complement activation assay	●				
C3/C5/CFB humanized mice available (Validating)	●				
Induced RPE cell damage					●
Melanin binding assay					●

Oxidative stress induced geographic atrophy

Model info:

Animal	Pigmented rodent/rabbit/NHP
Induction	Oxidative Stress
Dosing route	Intravitreal, subretinal, suprachoroidal, systemic, topical, retro-orbital
Read-out	① FAF ② IR+OCT ③ CFP ④ Histology
Follow-up	8~12 weeks
Suitable indication	Geographic atrophy

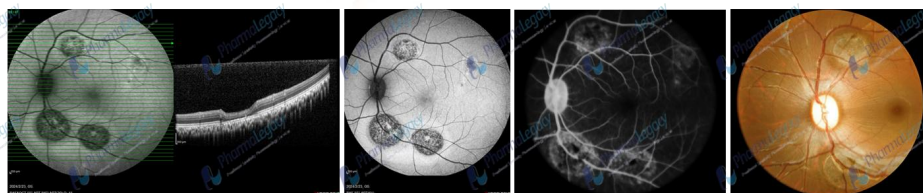
OCT

FAF

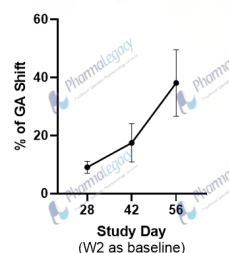
FFA

CFP

D28



GA lesion progression (FAF)



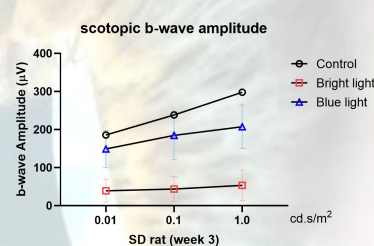
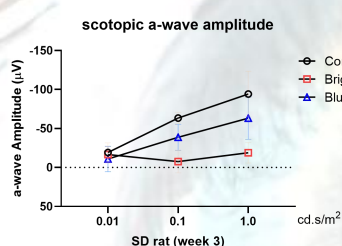
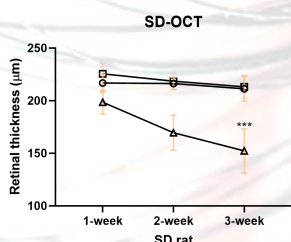
Model characteristics:

- ⚡ Oxidative stress is one of the main drivers of dAMD development;
- ⚡ A unique model in NHP that has well-defined geographic atrophy (GA) lesions progressing over time and can be tracked easily.

Blue Light/White Bright Light-induced retinopathy

Model info:	Animal	Rodent
	Induction	Blue Light/Bright White Light
	Dosing route	Intravitreal, subretinal, suprachoroidal, systemic, topical, retro-orbital
	Readout	① f-ERG ② SD-OCT ③ Histology (Optional) ④ Visual acuity (Optional)
	Follow-up	1~3 weeks
	Suitable indication	Dry AMD, geographic atrophy

Both Blue/White Bright Light modeling intensities can be adjusted to suit your study design.



Sodium Iodate induced retinal degeneration

Model info:	Animal	Rodent
	Induction	Sodium Iodate
	Dosing route	Intravitreal, subretinal, suprachoroidal, topical, systemic
	Readout	① f-ERG ② OCT ③ Visual acuity (optional) ④ Histology (Optional)
	Follow-up	7~30 days
	Suitable indication	Dry AMD, geographic atrophy, retinitis pigmentosa

