Enhancing retinal infectivity of intravitreal AAV delivery via electrical stimulation

Market: AAVs are a well-established and tested approach for retinal gene delivery with a market size of US 2.7 B (2024) and a CAGR of 40%.

Current Solution: AAV delivery to cells deep within the retina is limited to subretinal injection

Problem:

- Subretinal delivery has highest efficacy, but has high costs (operating theatre , sub-specialty surgeons), risk (including of developing atrophy) and treats only a small retinal area
- Intravitreal delivery has poor ability to penetrate the ILM

Our technology: An all-in-one delivery device provides electrical stimulation alongside gene therapy delivery thereby improving efficacy (x2) of the intravitreal gene therapy approach for all conditions

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Vitreo-retinal surgeon

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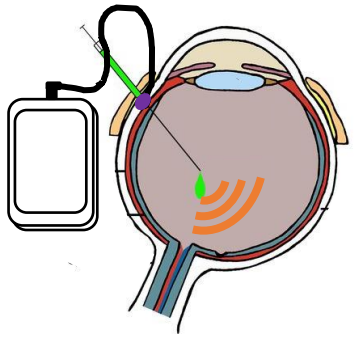
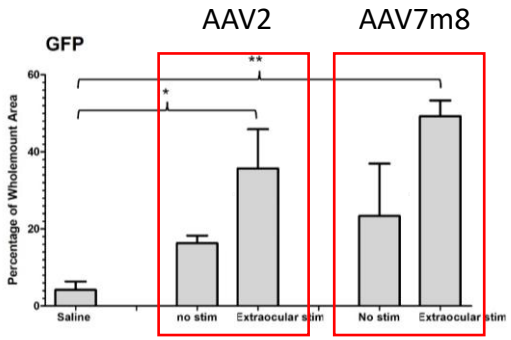
POC in-vivo mouse model





Device allowing for intravitreal vector delivery and stimulation

Electrical stimulation improves transduction to retinal cells

Next Steps

- Device development (cadaver eyes) and optimise stimulation parameters (*in-vivo model*)
- Strategic partnership opportunity to accelerate POC studies

For partnership opportunities contact:
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