

OpRegen[®] Retinal Pigment Epithelium (RPE) Cell Therapy for Patients with Geographic Atrophy (GA): Month 36 Results from the Phase 1/2a Trial

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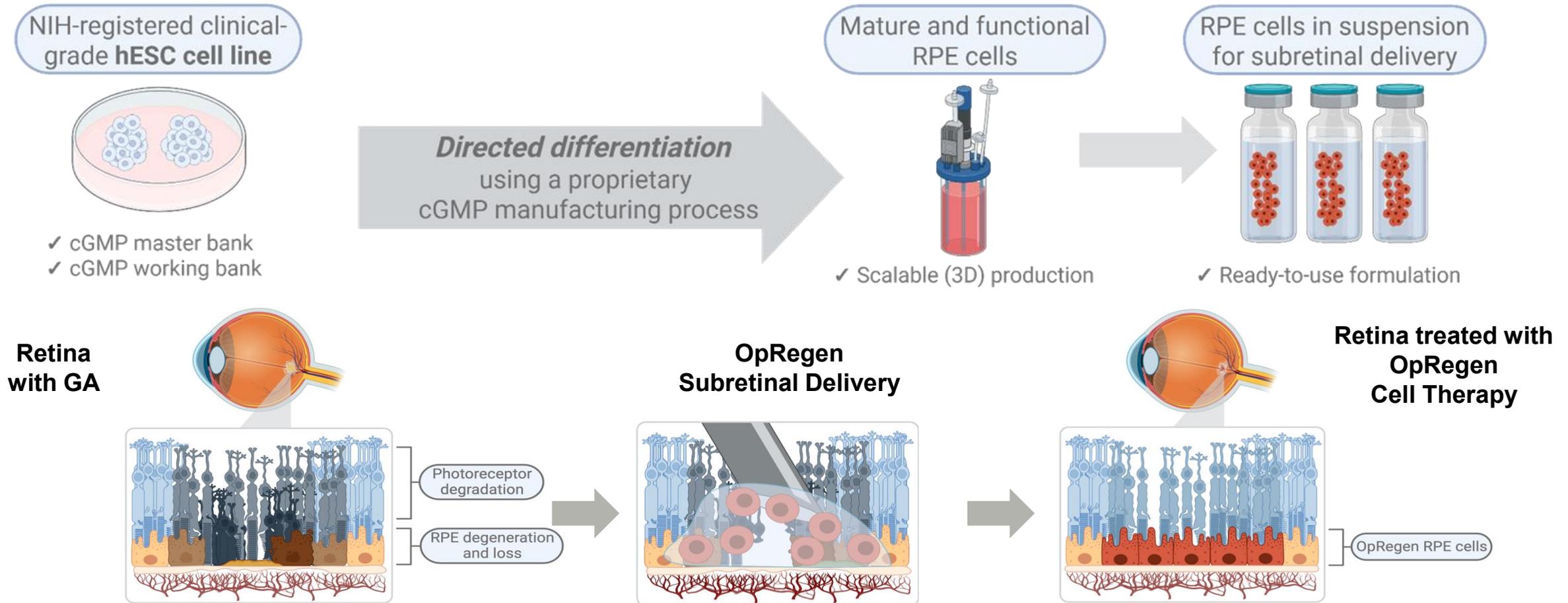
Disclosures

AI:ON Health – Consultant, Stock
Alimera / ANI – Speaker, Consultant
Allergan – Speaker, Consultant
Animal Eye Institute – Consultant
Aniridia Foundation International – Scientific Advisory Council Aniridia North America –
Medical and Scientific Advisory Council
Aspicio Therapeutics – Consultant, Stock
Bausch & Lomb – Speaker, Consultant
BMC/Eyetube – Consultant
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ECP (Eye Care Partners) – Stock, Medical Executive Board
Digital Surgery Systems – Stock, Ownership
D.O.R.C. – Consultant
ForwardVue Pharma – Board of Directors, Stock
Genentech / Roche – Consultant
Gore – Consultant
Gyroscope & Orbit BioMedical – Consultant, I.P.
Haag Streit AG & Haag Streit Surgical – Consultant
Haag Streit USA – Consultant, Speaker, I.P.
HumanOptics AG – Consultant
Iamc2 – Consultant, Cofounder, I.P.

iVeena – Investor, Stock, Consultant
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Kaleidoscope Engineering – Consultant, I.P.
Lineage / BioTime – Consultant
MedOne – Consultant, Royalties, I.P.
Neuracle – Consultant, Acting Medical Director
Northmark Pharmacy – Ownership
Novartis – Consultant
Oculinea – Investor, Stock
Regeneron – Speaker
Reliance Industries – Speaker, Honoraria, Consultant, I.P.
TrueVision - Consultant, Speaker, Royalties, Stock Options
VEO – Owner / Cofounder
VitaPixel – Owner / Cofounder
Vortex Surgical – Stock, Consultant, Royalties , I.P.
Zeiss – Consultant

Monies for research: AGTC, Alcon, Alimera, Allergan, Arepio, BioTime / Lineage, Chengdu Kanghong, Clearside, Genentech/Roche, Gyroscope, Lineage/BiotimeJanssen / Johnson & Johnson, Lowry-MacTel Registry, Neurotech, Nightstar/Biogen, NotalVision, Novartis, Ophthotec/Iveric, Regeneron, RegenexBio, Spark

OpRegen Cell Therapy – A Suspension of Allogeneic RPE Cells With the Potential to Counteract RPE Cell Dysfunction & Loss in GA



cGMP, current Good Manufacturing Practice; hESC, human embryonic stem cell.

NIH registry for hESC cell line HAD-C 102 available at https://grants.nih.gov/stem_cells/registry/current.htm?id=428. Figures created with BioRender.com.

Phase I/IIa Study Design (NCT02286089; active)

An Open-Label, Single-Arm, Multi-Center, Dose-Escalation Trial

Key Enrollment Criteria

Patients with bilateral GA secondary to AMD

Cohorts 1-3 (n=12):

- Legally blind (BCVA: $\leq 20/200$)
- GA area: 1.25–17 mm²

Cohort 4 (n=12):

- **Impaired vision (BCVA: $\geq 20/250$ and $\leq 20/64$)**
- **GA area: ≥ 4 and ≤ 11 mm²**

Single OpRegen Administration

Cohort 1 (n=3)
50,000 cells

Cohort 2 (n=3)
Up to 200,000 cells

Cohort 3 (n=6)
Up to 200,000 cells

Cohort 4 (n=12)
Up to 200,000 cells

Subretinal Delivery

Vitrectomy/retinotomy (n=5)

Suprachoroidal cannula using Orbit® SDS (Gyroscope Therapeutics) in Cohort 4 only (n=7)

Perioperative Immunosuppressive Regimen

Tacrolimus 0.01 mg/kg daily up to 6 weeks after surgery
Mycophenolate up to 2.0 g daily at least 3 months after surgery

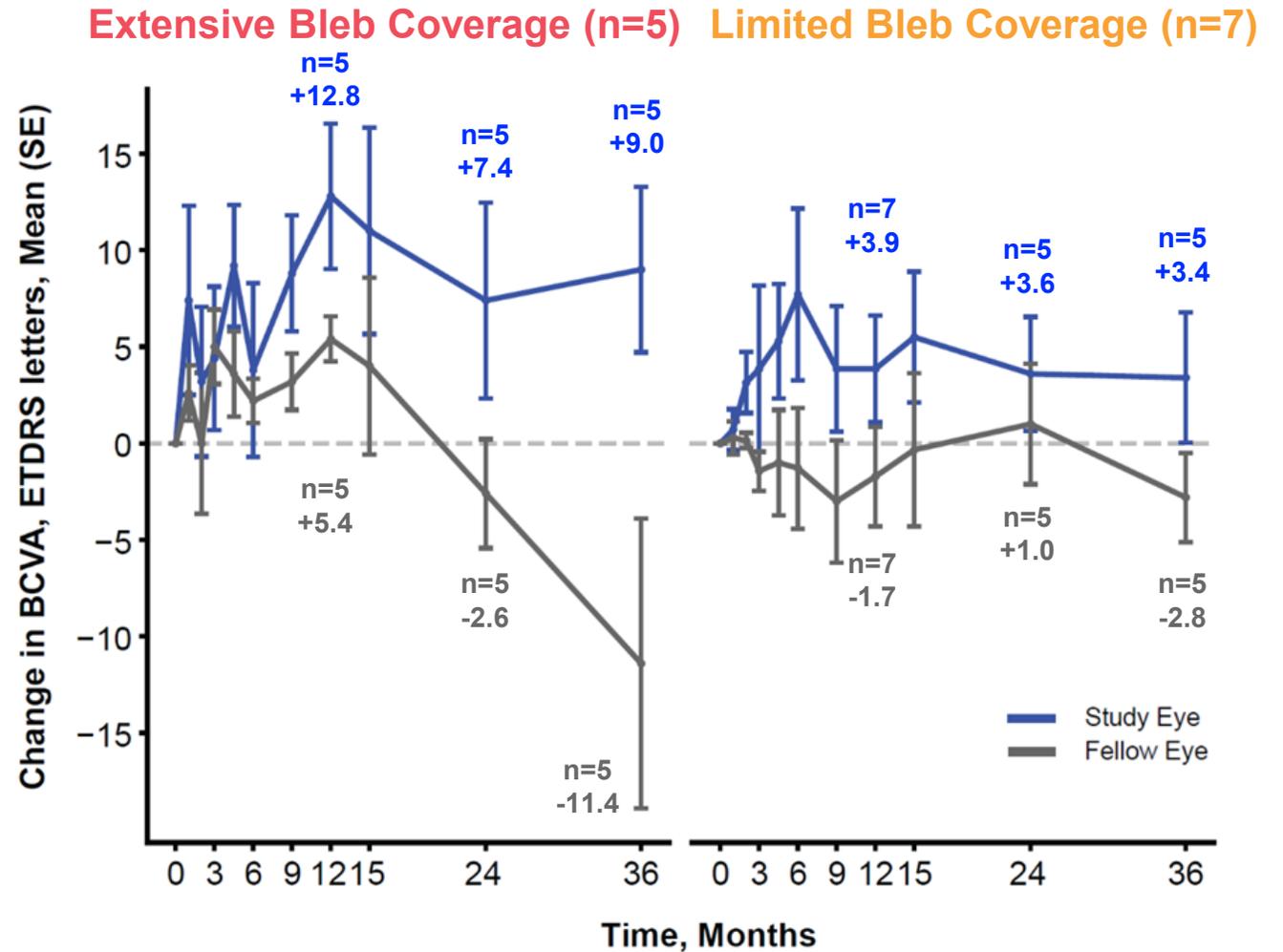
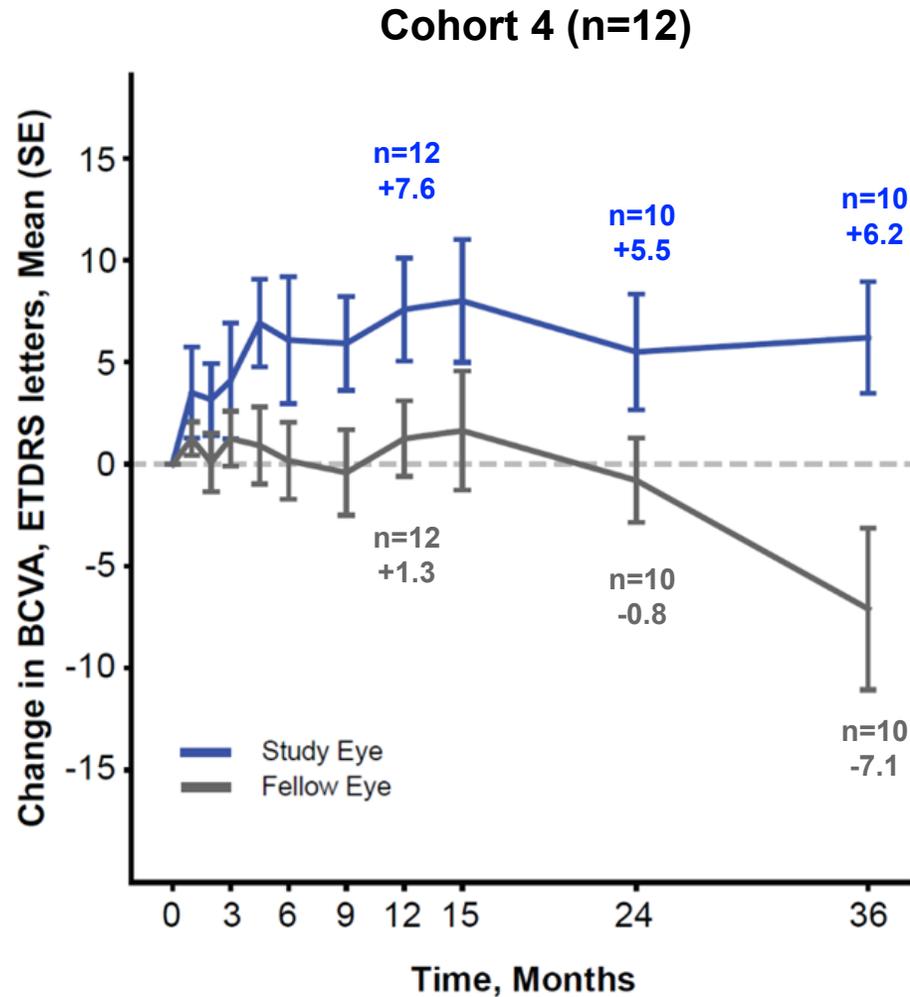
Primary Outcome at 12 Months: Safety/Tolerability

OpRegen cell therapy was generally well-tolerated with no cases of acute or delayed intraocular inflammation or tumor formation^a

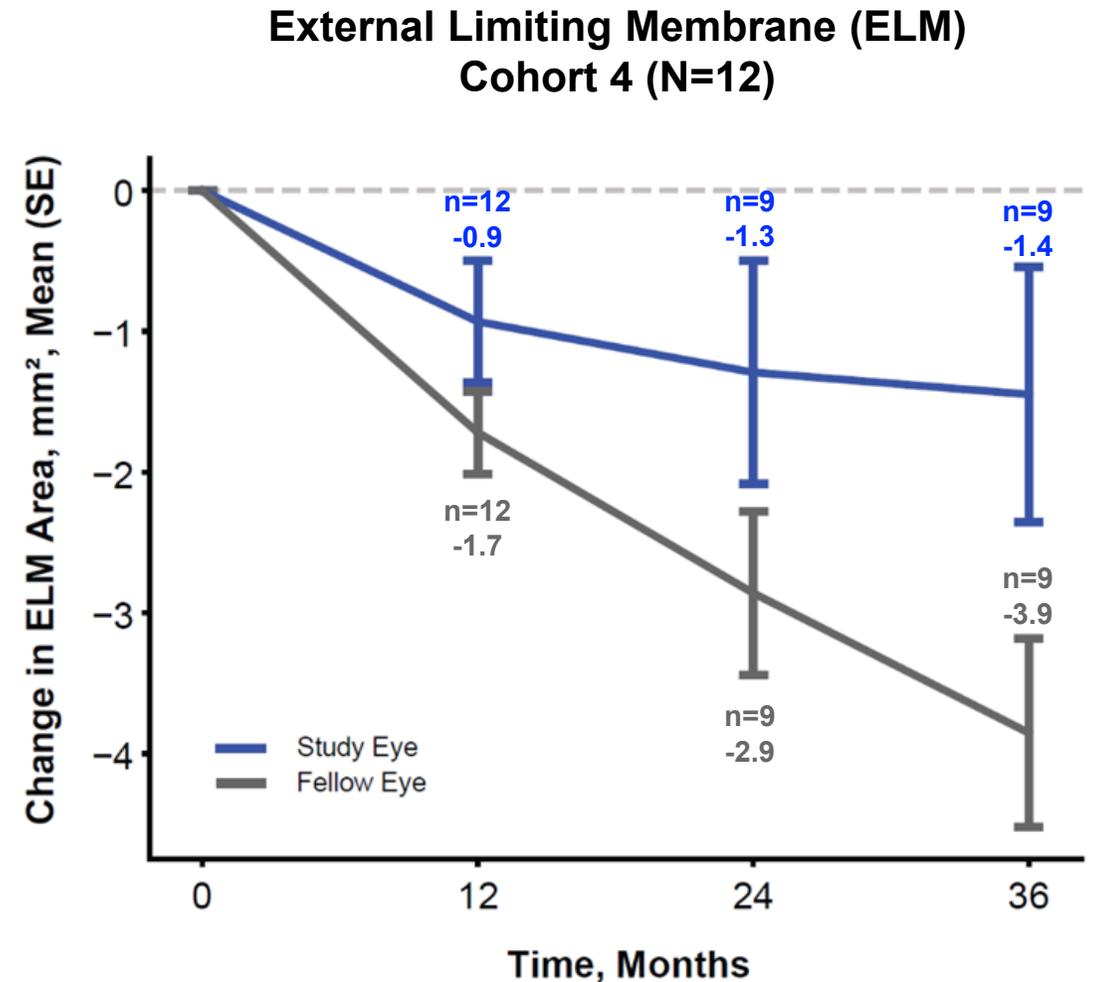
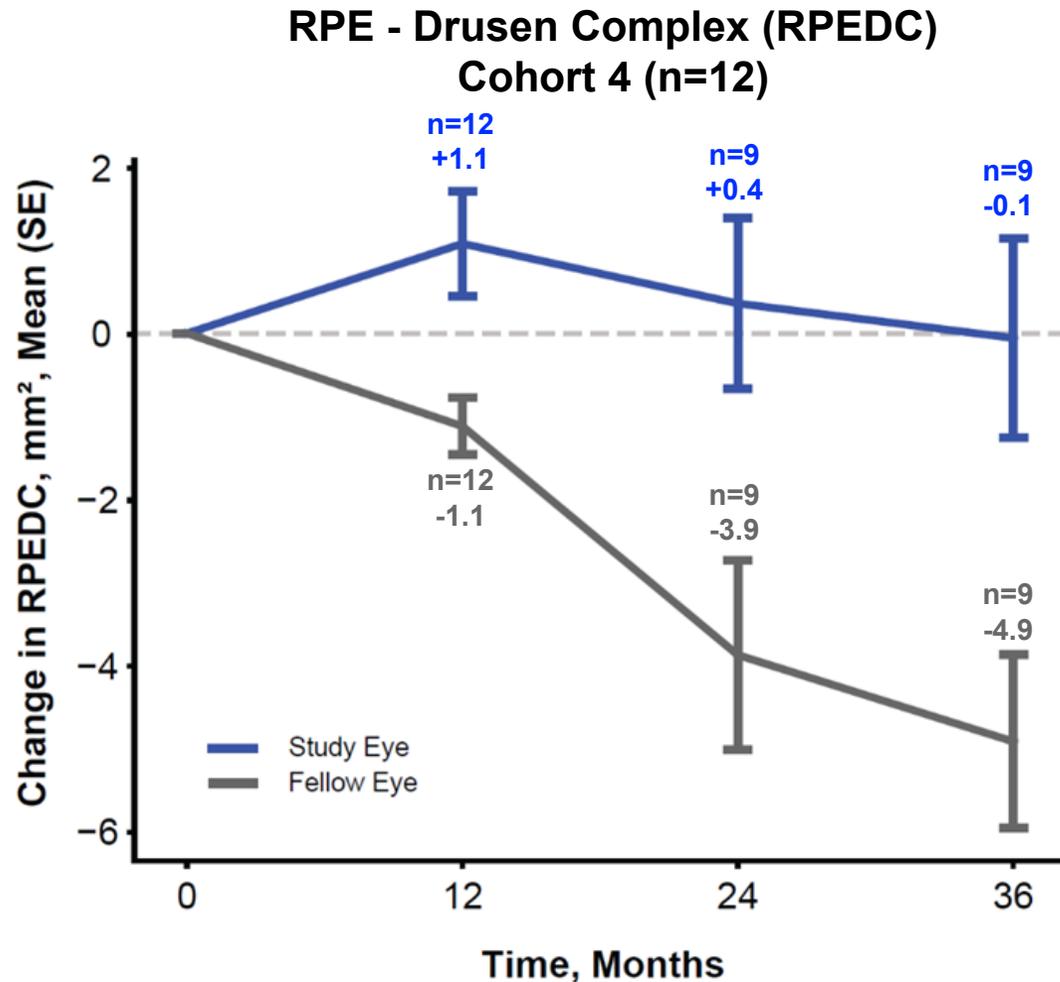
^aSafety data previously presented (Ho AC et al. ARVO 2022. <https://iovs.arvojournals.org/article.aspx?articleid=2780049>); NCT02286089 AMD, age-related macular degeneration; BCVA, best corrected visual acuity; GA, geographic atrophy; SDS, subretinal delivery system.

Study Eyes of Cohort 4 Patients (Less Advanced GA) Show Sustained BCVA Gains Through Month 36

BCVA Gains are Greater Among Eyes with Extensive Coverage of GA by the Surgical Bleb



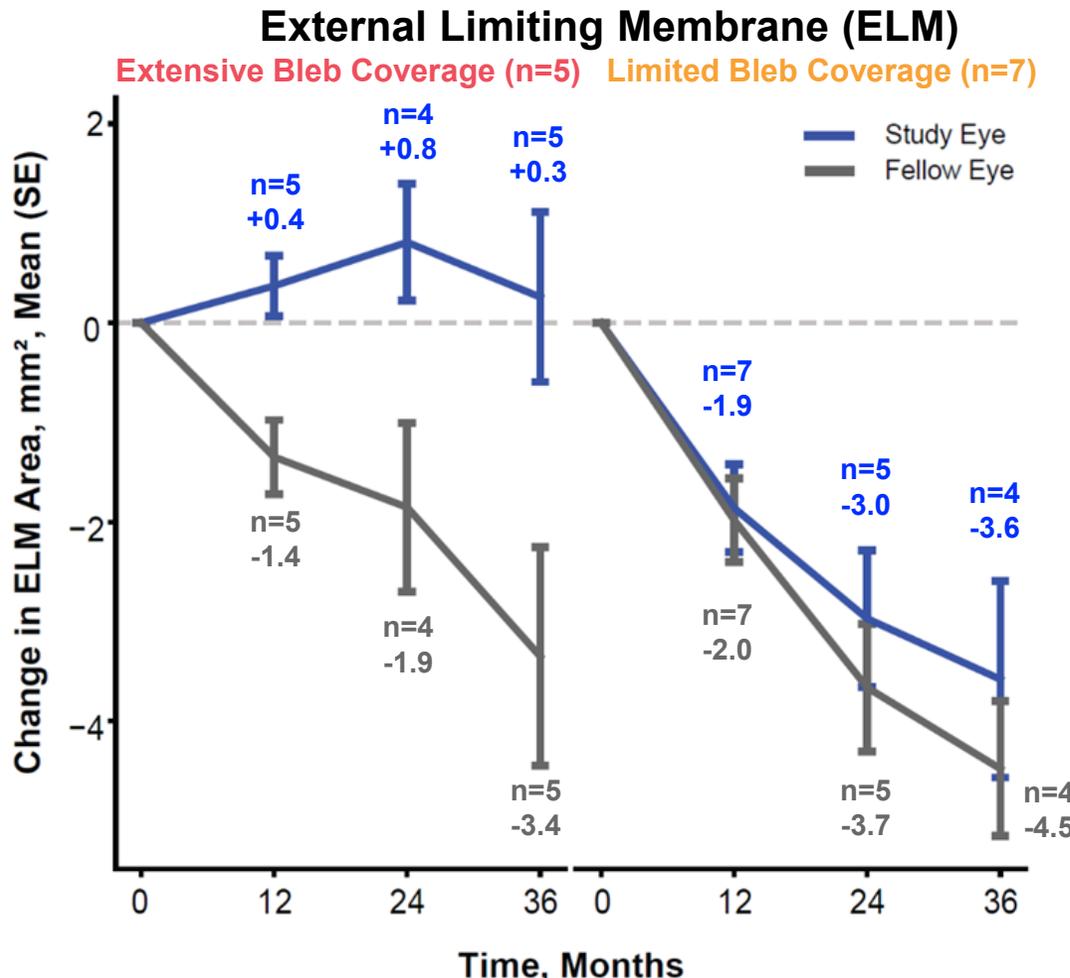
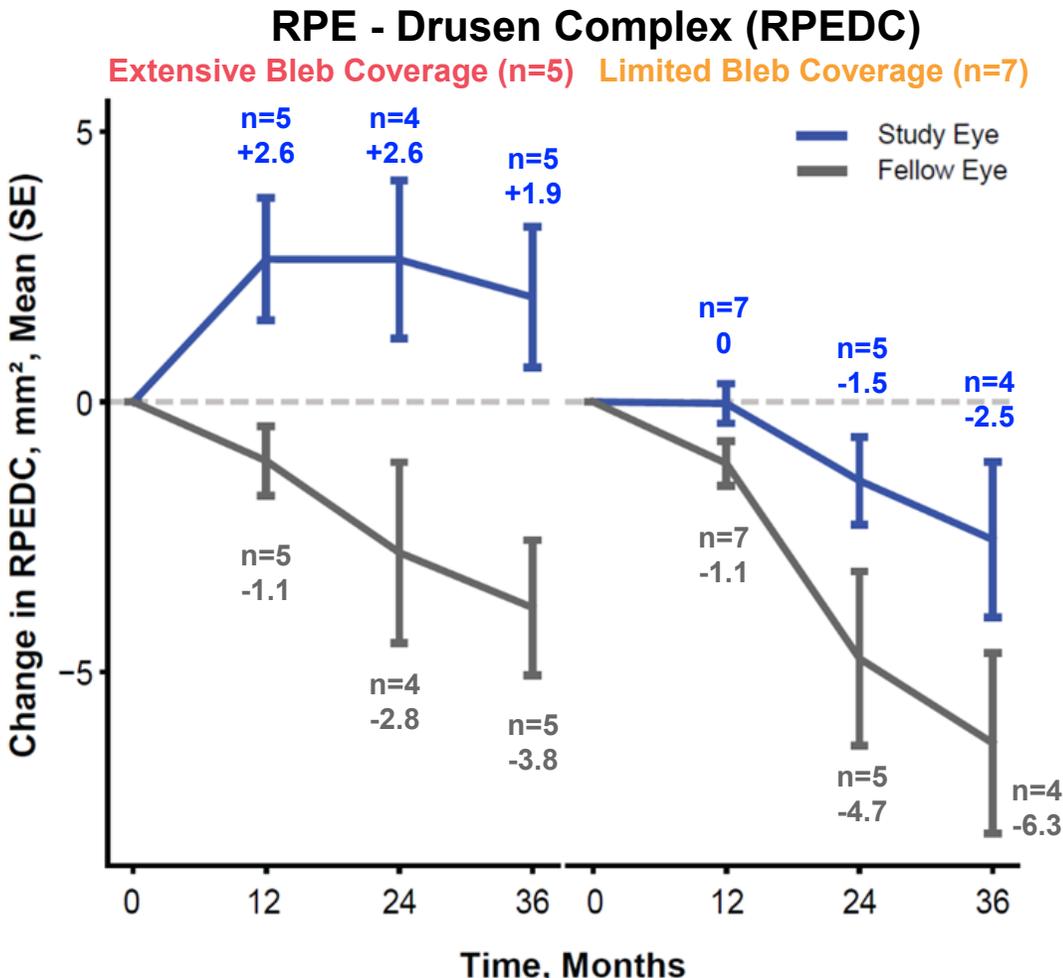
Study Eyes of Cohort 4 Patients (Less Advanced GA) Show Sustained Evidence of Retinal Structural Support by Quantitative OCT Analysis Through Month 36



Segmentation result is generated by Genentech EyeNotate OCT segmentation algorithm, reviewed and corrected by a single masked expert grader.

Study Eyes of Cohort 4 Patients (Less Advanced GA) Show Sustained Evidence of Retinal Structural Support through Month 36

Support is Most Evident Among Eyes with Extensive Coverage of GA by the Surgical Bleb

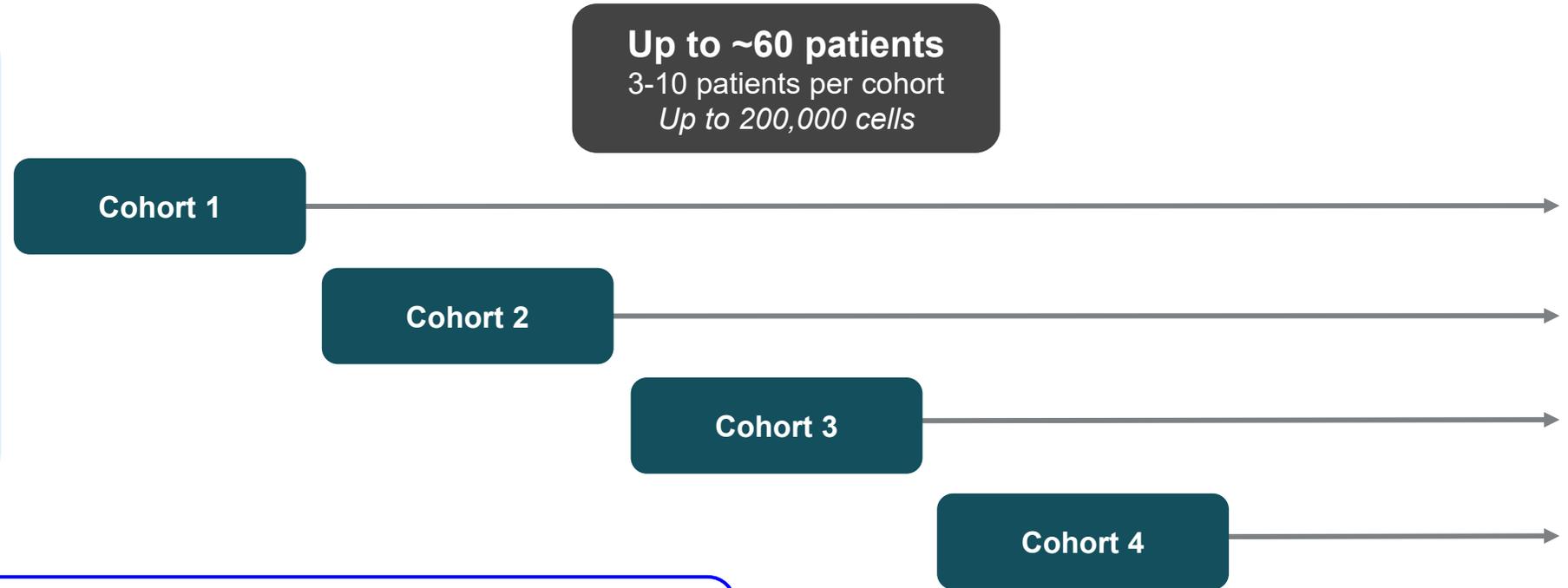


Segmentation result is generated by Genentech EyeNotate OCT segmentation algorithm, reviewed and corrected by a single masked expert grader.

Galette: A Phase 2a Multicenter, Open-Label, Single-Arm Study to Optimize the Subretinal Delivery of Opregen Cell Therapy In GA (NCT05626114; [Recruiting])¹

Key Enrollment Criteria

- Age ≥50 years
- Diagnosis of GA secondary to AMD
- BCVA score ≥29 letters and ≤60 letters in the study eye as assessed by ETDRS
- Pseudophakic (study eye)
- Ability to undergo vitreoretinal surgical procedure under sedation or general anesthesia



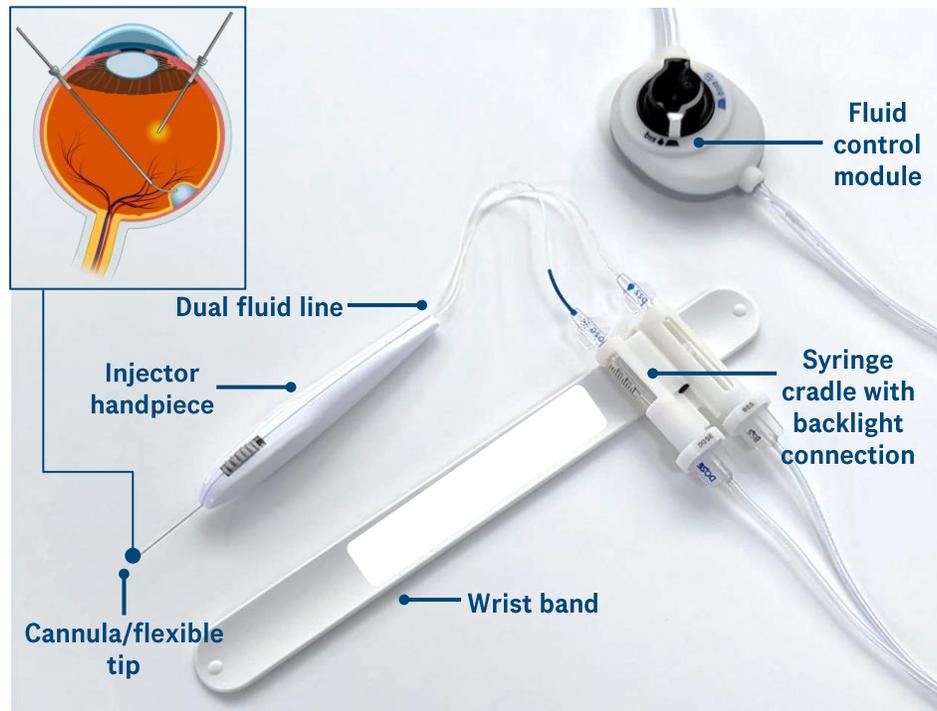
Primary Endpoints

- Success of OpRegen subretinal surgical delivery to target GA regions
- Safety of OpRegen surgical delivery at 3 months

Advanced Subretinal Delivery Devices are Under Development for Evaluation with OpRegen Cell Therapy

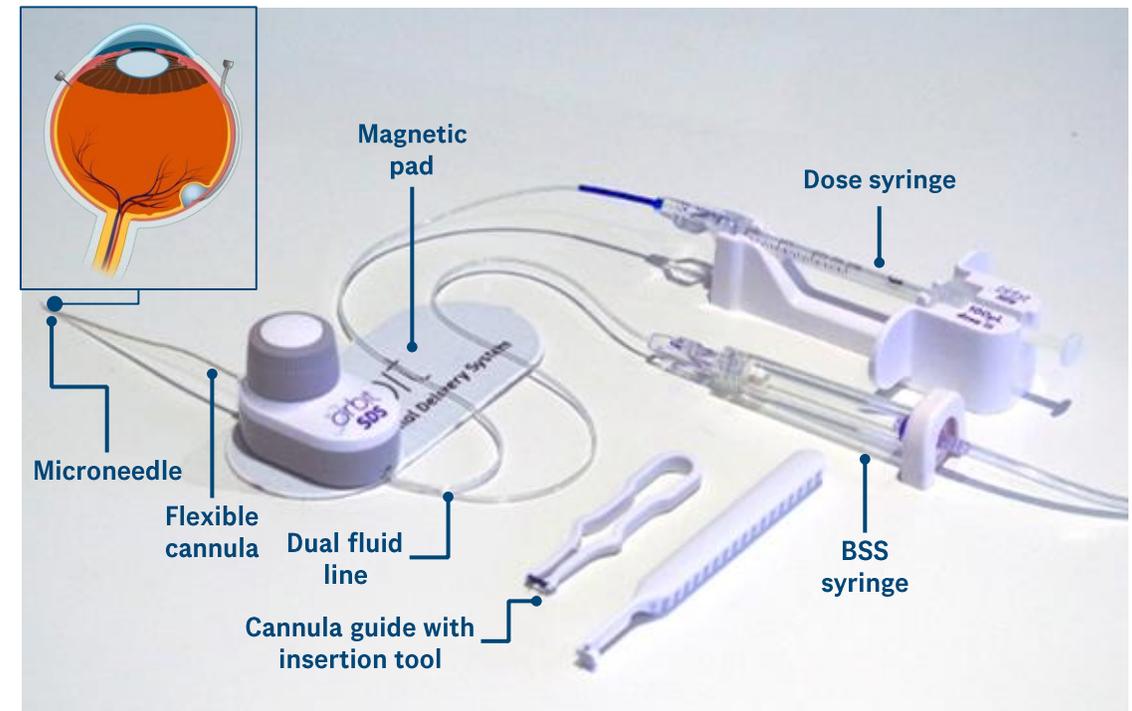
Transvitreal Subretinal Injector (TVSI) with Dual Lumen

Allows delivery of two infusates via a single insertion/retinotomy



Orbit SDS[®] Next Generation

Subretinal delivery via transchoroidal approach removes the need for vitrectomy and retinotomy



Conclusions

- Gains in BCVA in patients in Cohort 4 (less advanced GA) measured at Month 12 remain evident through Month 36 following subretinal administration of OpRegen cell therapy
- Improvement in BCVA and outer retinal structure in patients with extensive OpRegen bleb coverage of their GA area was greater than in patients with limited coverage and persisted through Month 36
- These data suggest that OpRegen cell therapy may counteract RPE cell dysfunction and loss in GA by providing support to remaining retinal cells in ways that bear further study, and these effects appear durable through at least 36 months after a single administration
- The Phase IIa GAlette study evaluating the success of subretinal delivery of OpRegen cell therapy to target areas of GA is currently enrolling (NCT05626114)
 - In addition to evaluating other surgical parameters, this study will test proprietary surgical devices in development for subretinal delivery of OpRegen cell therapy with potential advantages over currently available devices and procedures

Ph1/2a Study Investigators, Sites, and Support

Investigators

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Trial Conduct

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