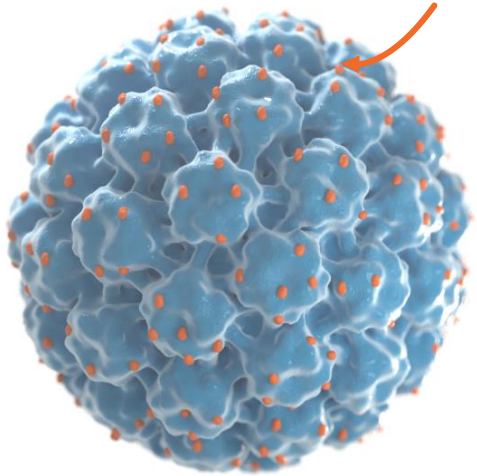
A Phase 2 Trial of Belzupacap Sarotalocan, a Targeted Investigational Therapy for Choroidal Melanoma via Suprachoroidal Administration

Monday, 11:54AM - 12:01PM PST
Session: PA069
Location: WEST 2006

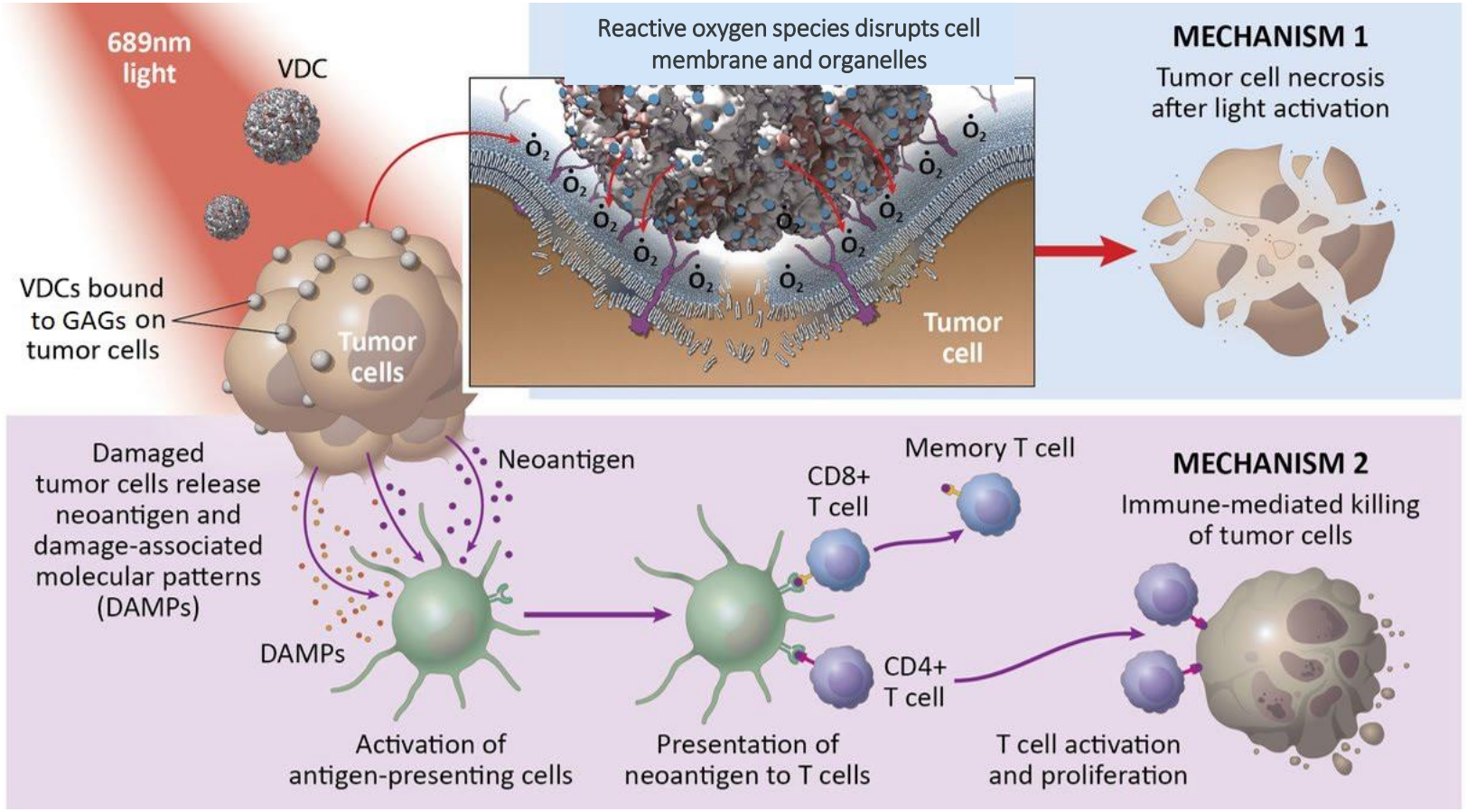
Bel-sar is a VDC with a Novel Dual Mechanism of Action

Light Activated Drug



Bel-sar*

Bel-sar is a novel VDC that consists of a VLP conjugated to ~200 molecules of phthalocyanine dye



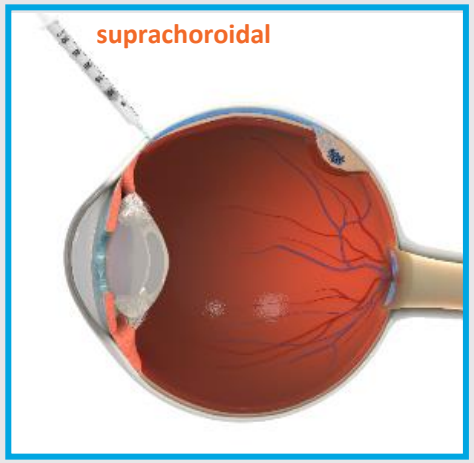
Kines et al; Cancer Immunology Research, May 2021

Mechanism of Action is Agnostic to Specific Genetic Mutations and has the Potential to Prevent Metastatic Disease

*Formerly AU-011

Bel-sar is a Novel Targeted Therapy in Development for the Treatment of Choroidal Melanoma

Bel-sar is Delivered by Simple Suprachoroidal Injection



Two injections (2min. each) 30 min apart

3-4h

Light Activation with Standard Ophthalmic Laser

10-30 min. procedure

In-Office

Goals of Treatment

- Local tumor control
- Preservation of vision
- No radiation morbidity
- Opportunity to treat early and reduce risk of metastases
- Improvement in safety and quality of life

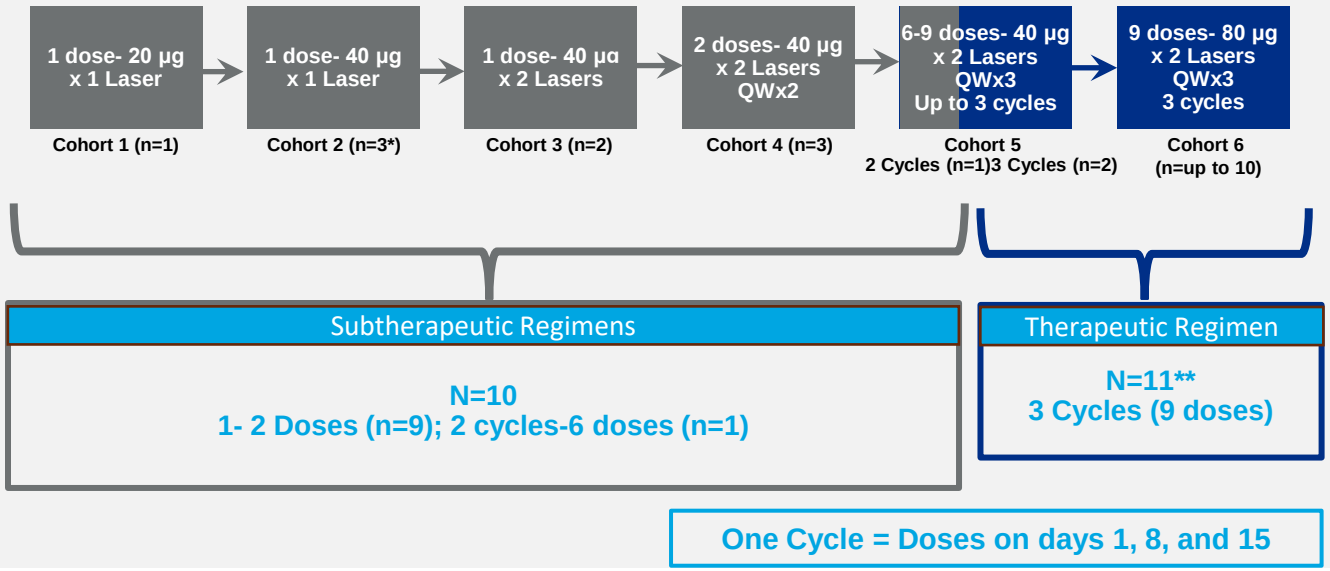
Bel-Sar has the Potential to be the First Vision Preserving Targeted Therapy for Early-Stage Choroidal Melanoma

Ph 2 Trial – Dose Escalation and Expansion with Suprachoroidal Administration

Patient Population Representative of Early-Stage Disease: Indeterminate Lesions and Small Choroidal Melanoma

Endpoint	Endpoint Definitions
Tumor Progression	Growth in Tumor Height ≥0.5mm or ≥1.5 mm in Largest Basal Diameter (LBD)
Visual Acuity Loss	Decrease from Baseline: ≥15 letters
Tumor Thickness Growth Rate	Change in Rate of Growth of Tumor Thickness

Trial Design – Enrollment Complete (n=22)

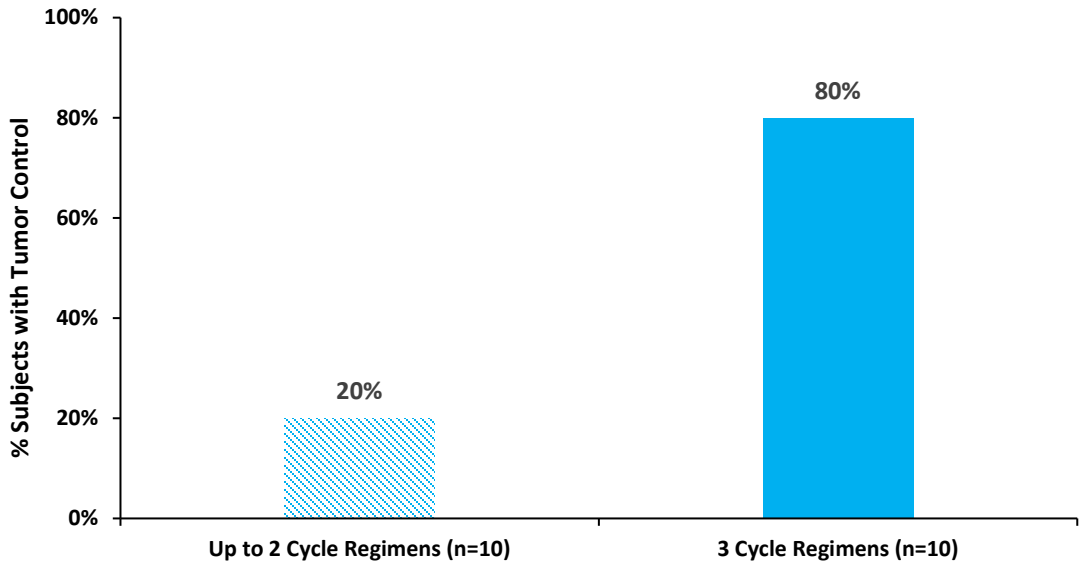


Goal: To Determine Safety, Optimal Dose and Therapeutic Regimen with Suprachoroidal Administration

*Cohort 2: 2 subjects were planned; third subject was additionally enrolled due to dose error in 1 subject
**12 patients enrolled, 1 subject who discontinued after 1 cycle due to unrelated SAEs is not included in data analysis (n=11). Data that follows will be based on a cohort of 11
ClinicalTrials.gov Identifier: NCT04417530 ; AU-011-202

High Tumor Control Rates Observed – Durable at 12 Months Follow Up

Dose Response: Subtherapeutic vs Therapeutic Regimen



>90% completed 12 Months

Dose/Regimen	Total Patients (n)	Tumor Control Rate
Subtherapeutic Regimens		
Single dose up to 2 cycles	10	20% (2/10)
Therapeutic Regimen		
3 Cycles (n=11)	11	73% (8/11)
3 Cycles and Ph 3 eligible (n=10)*	10	80% (8/10)

* One subject with circumpapillary tumor that did not meet Ph 3 criteria is not included

Tumor Progression: change from baseline in thickness ≥0.5mm; or in LBD ≥1.5mm confirmed by at least one repeat assessment
August 3, 2023, data on file Aura Biosciences

High Tumor Control Rates with Therapeutic Regimen in Ph 3 Eligible Patients with Active Growth

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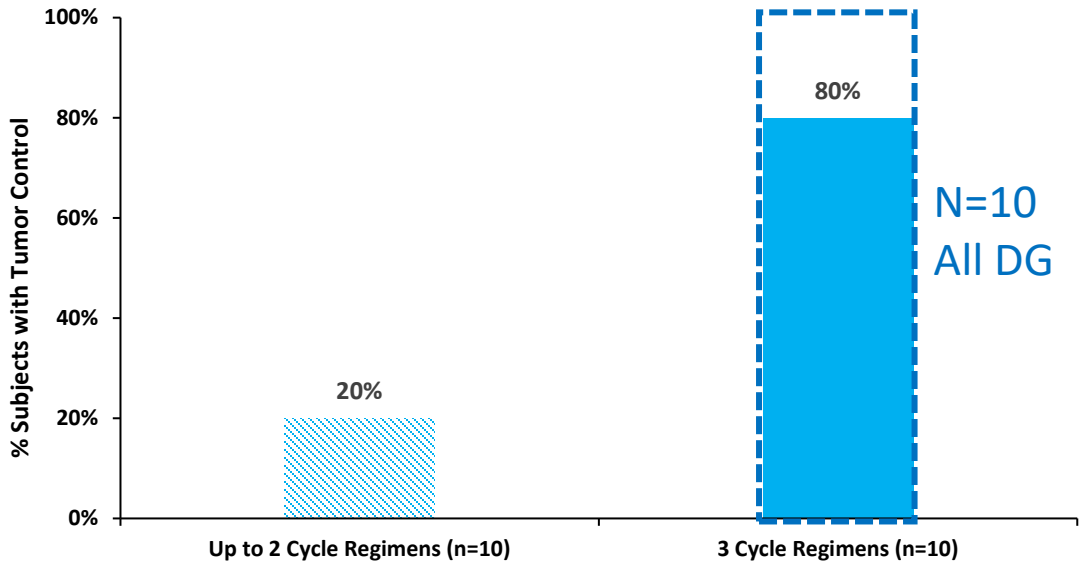

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*DG = Documented Growth

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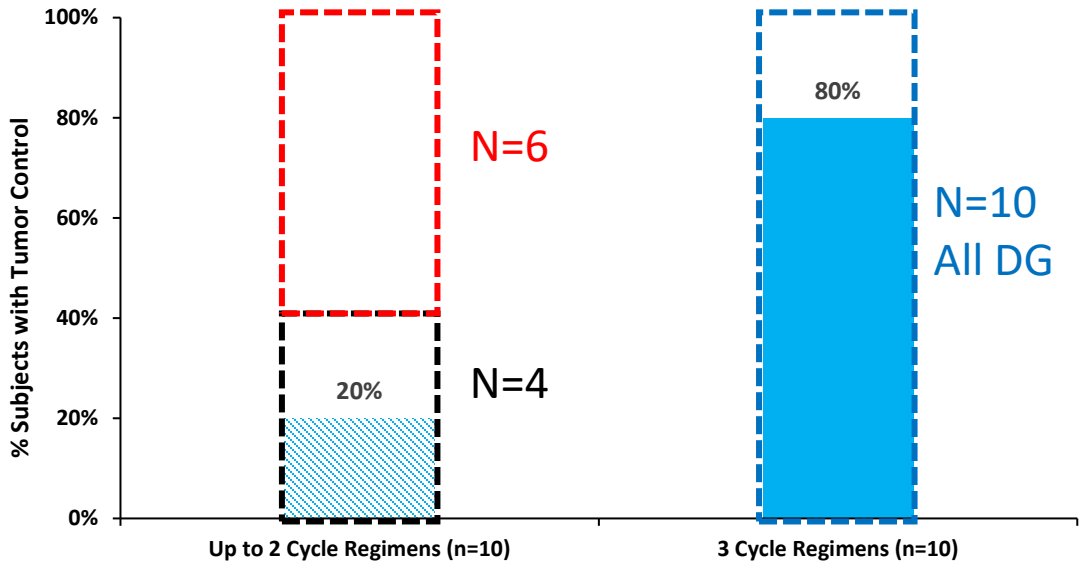

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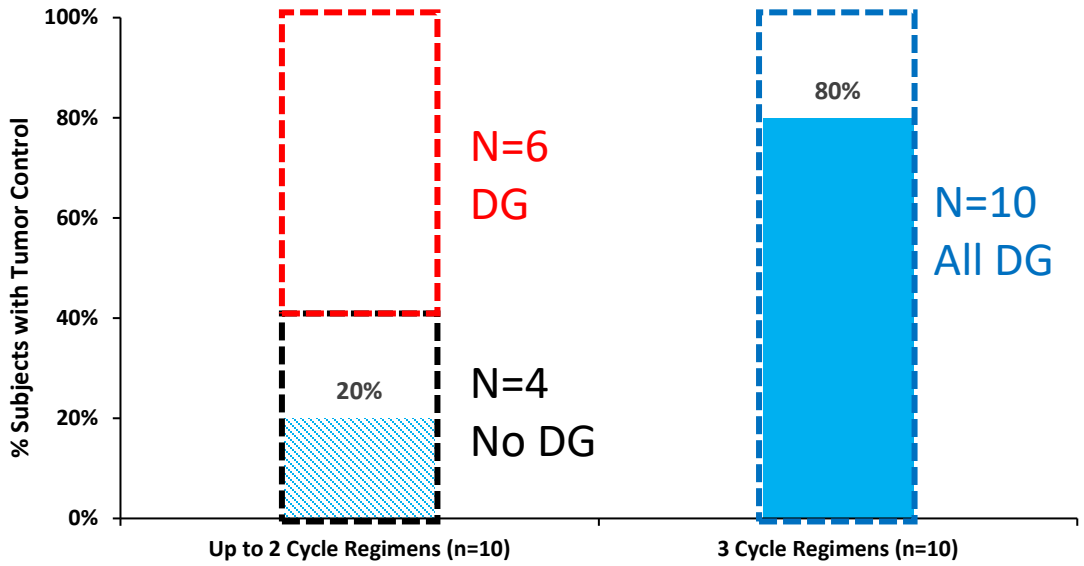

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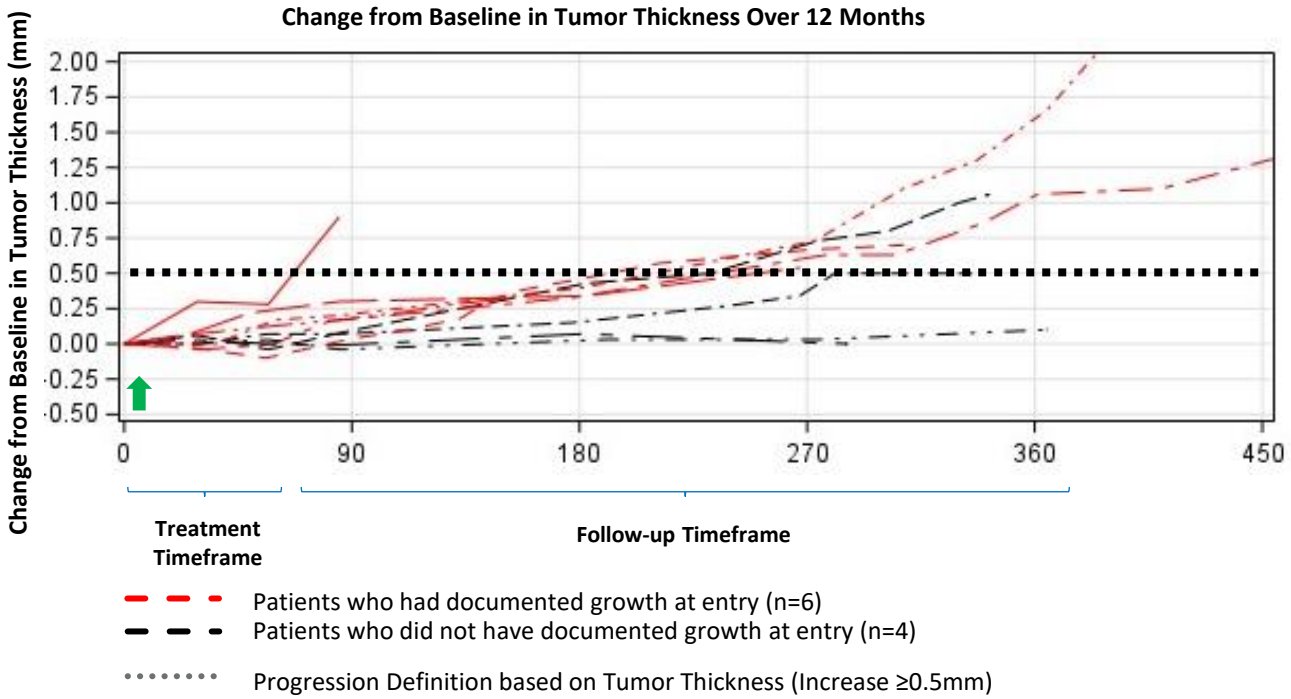
High Tumor Control Rates Observed in Ph 3 Population Treated with Therapeutic Regimen

Subtherapeutic Regimens (n=10)



August 3, 2023, data on file Aura Biosciences

Ph 2 Interim Data Demonstrated Tumor Control Rate of 80%, with 90% of Patients at 12 Months

High Tumor Control Rates Observed in Ph 3 Population Treated with Therapeutic Regimen

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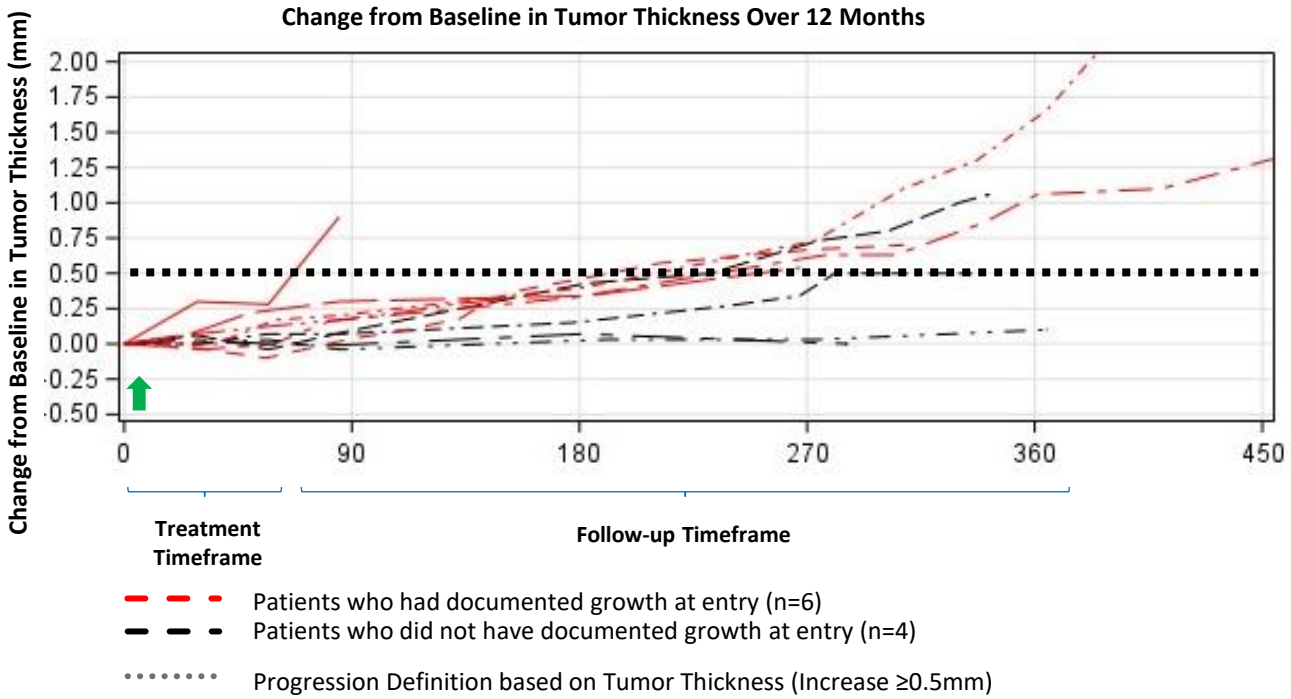
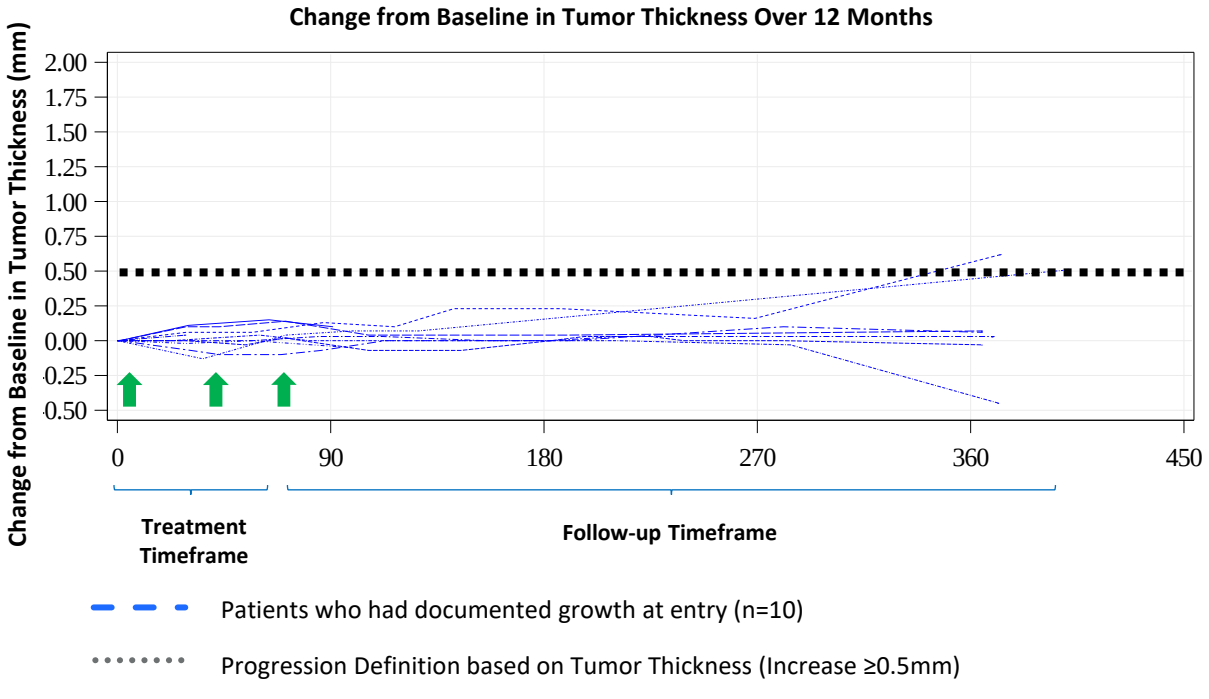


Active Growth and 3 Cycle Regimens (n=10)

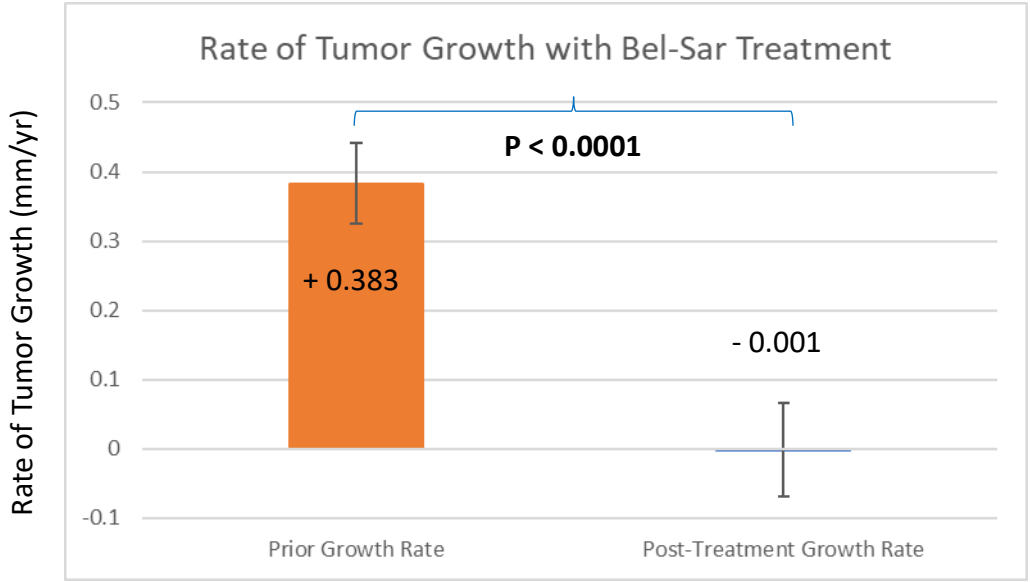


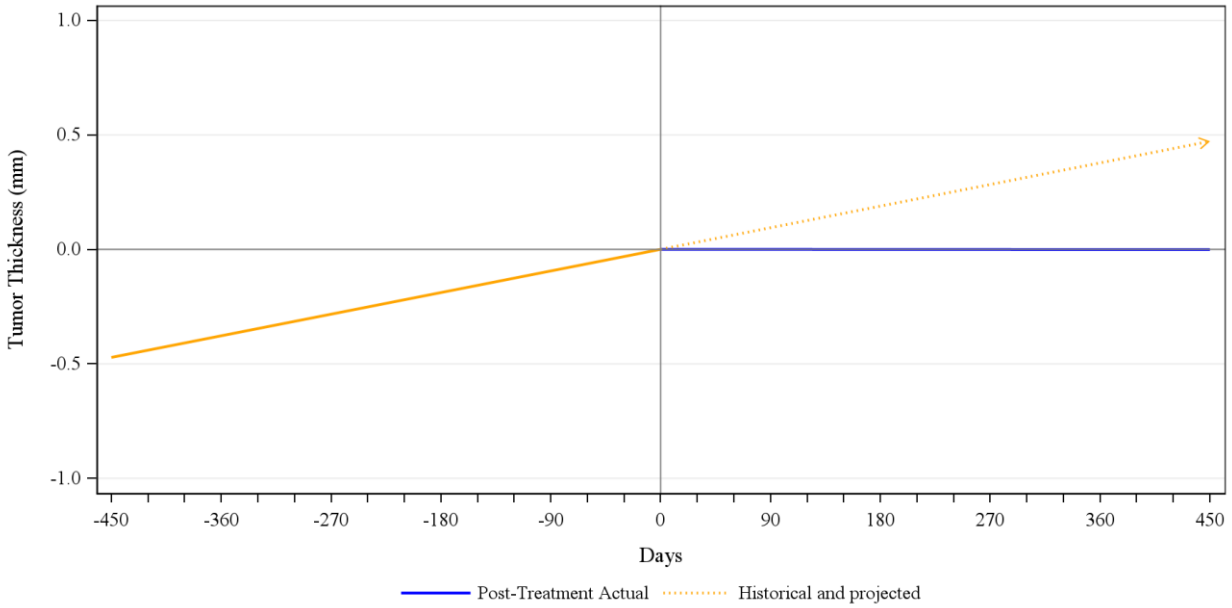
August 3, 2023, data on file Aura Biosciences

Ph 2 Interim Data Demonstrated Tumor Control Rate of 80%, with 90% of Patients at 12 Months

Ph 2 Interim Data Demonstrated Statistically Significant Tumor Growth Arrest

Successful Treatment with 3 Cycle Regimen in Ph 3 Eligible Tumors with Active Growth Change in Tumor Growth (mm/yr) (n=8)



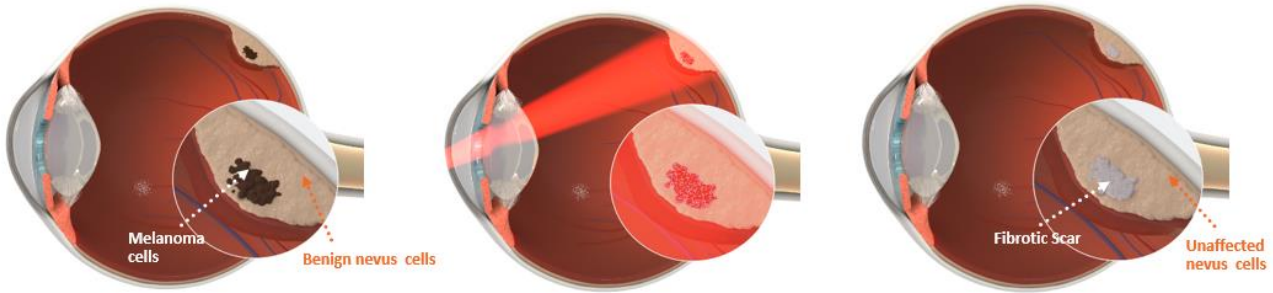


August 3, 2023, data on file Aura Biosciences
Tumor thickness growth rates/ slopes estimated using Mixed Models for Repeat Measures (random intercept and slope model for Historical and Study periods)

Interim Data Showed Complete Growth Arrest Among Responders in Planned Ph 3 Population (P <0.0001)

Goal for Bel-sar: Eliminate Malignant Cells in the Choroid and Preserve Vision

Similar to Current Clinical Practice with Radiotherapy - Local Tumor Control May Equate to a Local Cure



Baseline Measurement

Many early-stage melanomas have a small component of melanoma cells within a benign nevus

Treatment

Bel-sar targets mostly the malignant cells and not the benign nevus, retina or other ocular structures

Post-treatment Measurement

(Unchanged Tumor Height) malignant cells are replaced by fibrosis so there is a minimal reduction in size of the overall lesion after treatment

Objective of Treatment is to Obtain a Local Cure with Visual Acuity Preservation

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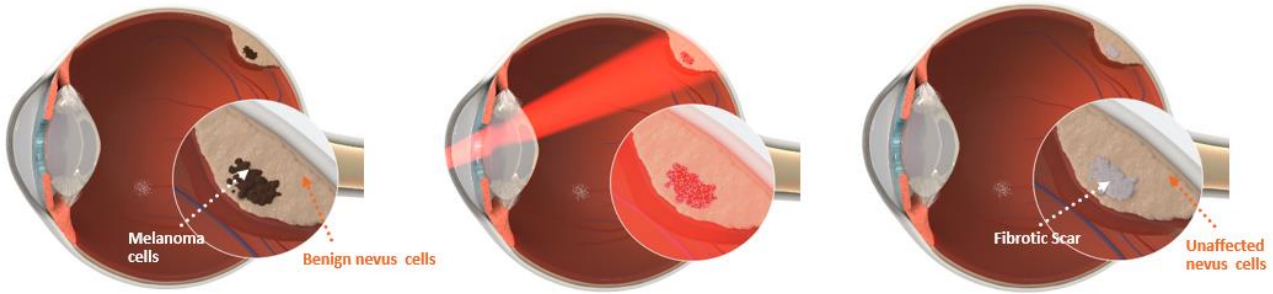

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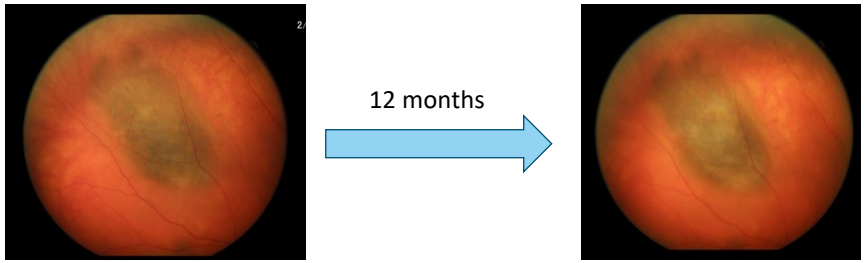
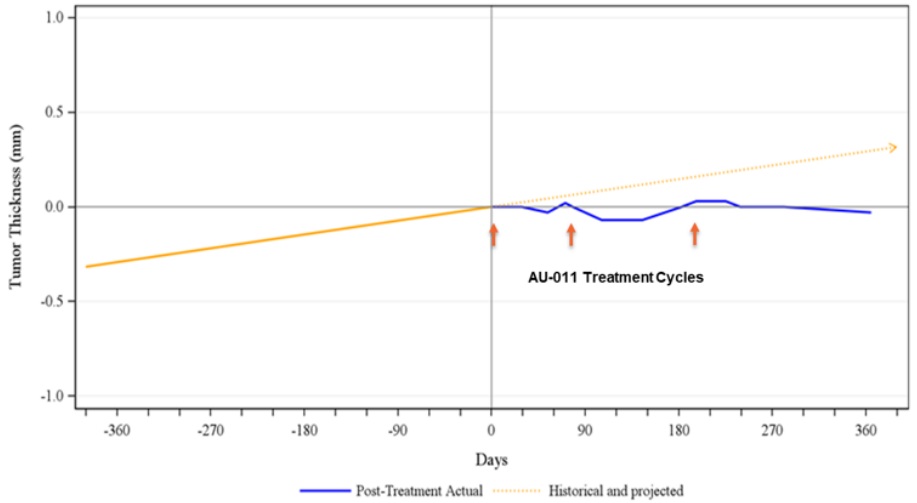
Phase 3 Eligible Patient after treatment lesion shows fibrosis and no growth



	Baseline	Wk 4	Wk 8	Wk 12	Wk 26	Wk 39	Wk 52
BCVA	91	92	92	89	89	90	89



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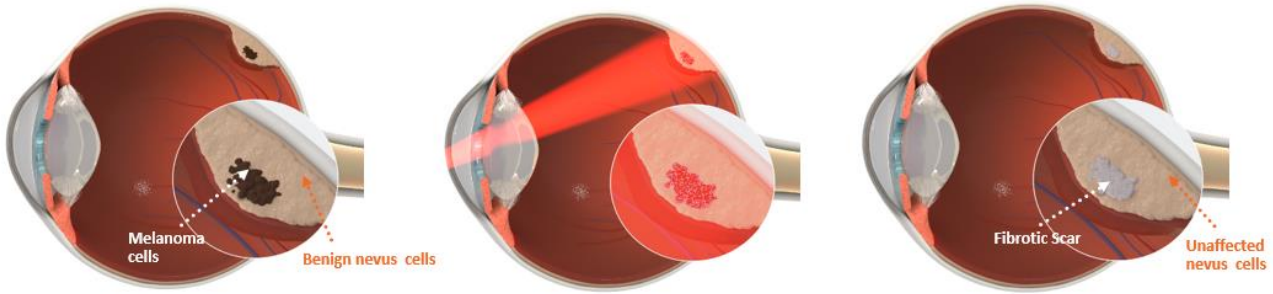

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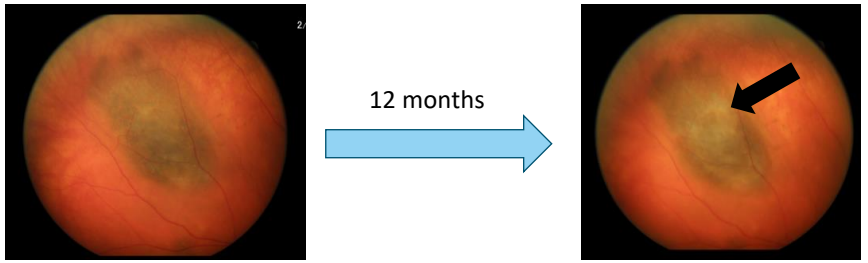

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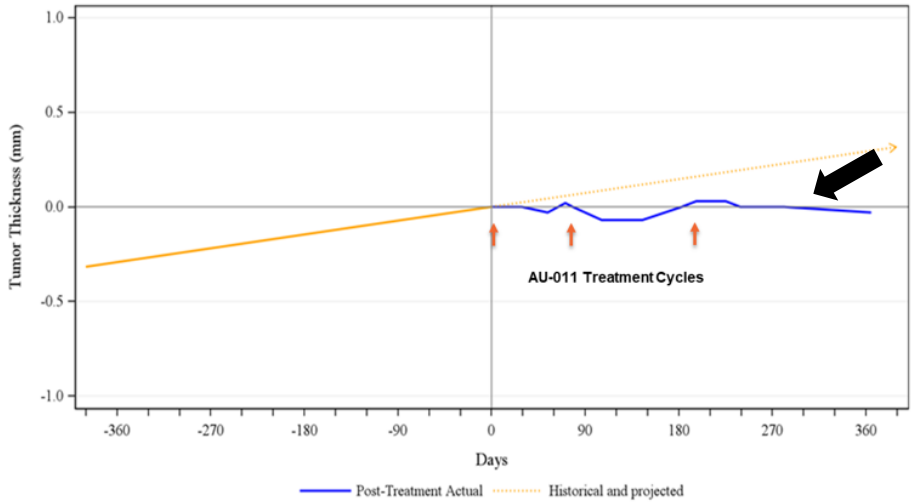

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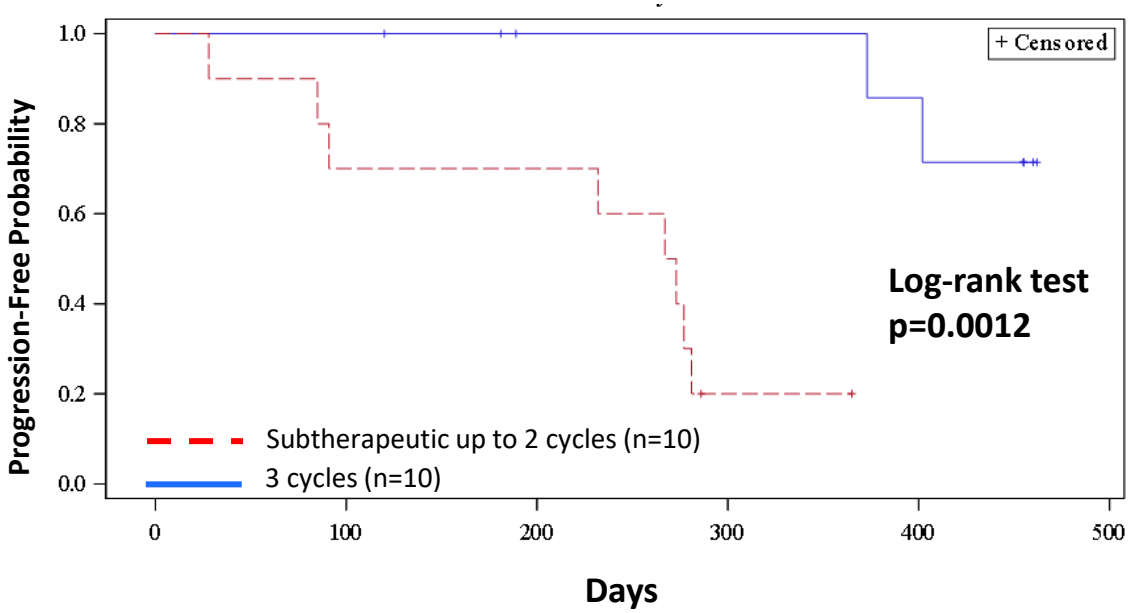
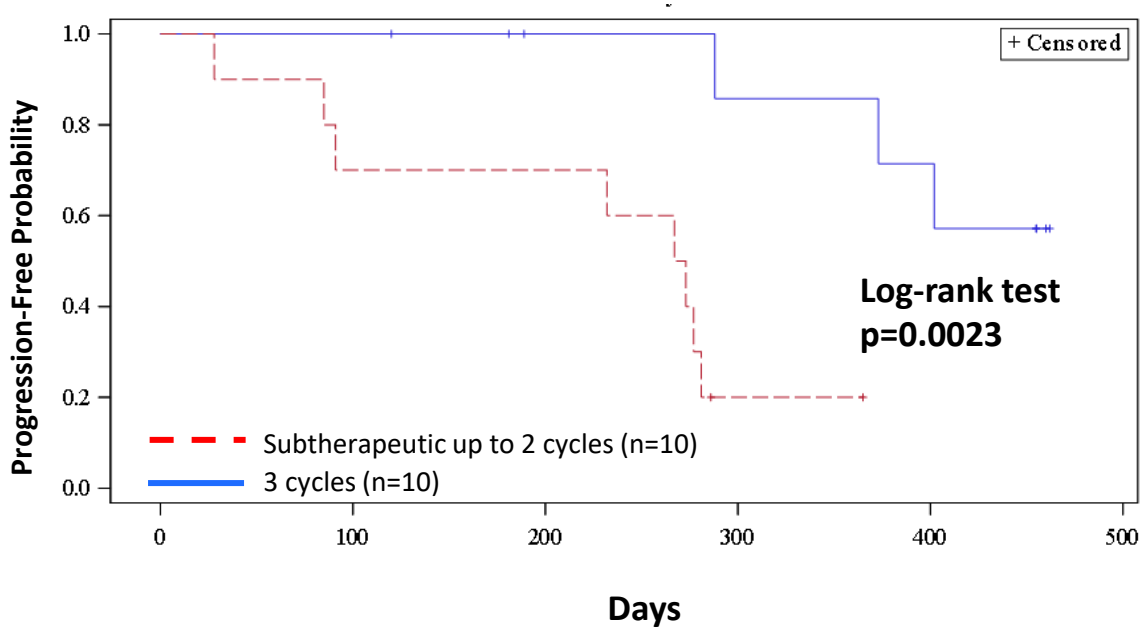
Kaplan-Meier Analysis Simulation of Key Primary & Secondary Endpoint with Ph 2 Data

Time to Tumor Progression



Time to Composite Endpoint

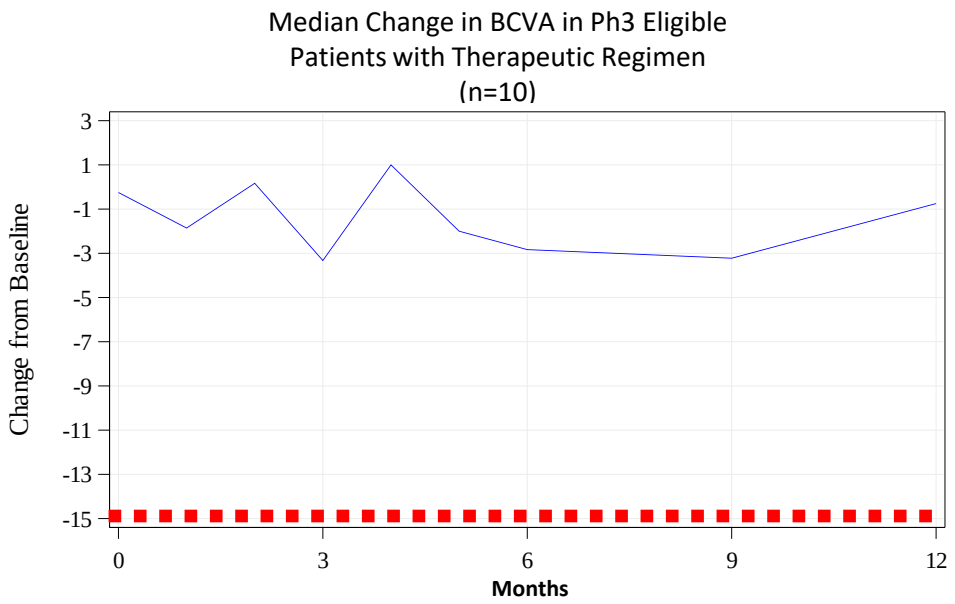


Note: Subjects either had an event or were censored at the last visit. Some subjects had Week 52 visit after 365 days.
Time to Composite Endpoint is defined as time to tumor progression or vision acuity failure, whichever occurs earlier.
Tumor progression is defined as a change from baseline in thickness ≥0.5mm; or in LBD ≥1.5mm confirmed by at least one repeat assessment.
Log-rank test p-value based on unsimulated original KM curves
August 3, 2023 data on file Aura Biosciences
Study duration 12 months. Some patients presented delayed for their final 12-month visit. Any events at the final visit are assigned to the actual time of that visit.

Ph 2 Interim Data Supports Assumptions for the Success of Ph 3 with High Statistical Significance

90% Visual Acuity Preservation Despite 80% of these Patients being at High Risk for Vision Loss

>90% patients completed 12 months



Vision acuity loss definition based on ETDRS BCVA letter score (≥ 15 letters from baseline)

August 3, 2023, data on file Aura Biosciences

Populations	Total Patients (n)	Vision Failures (n)	Vision Preservation Rate
All Dose Cohorts			
All Treated Patients	22	1	96%
Subtherapeutic			
Single dose up to 2 cycles	10	0	100%
Therapeutic Regimens			
3 Cycles (n=11)	11	1	91%
3 Cycles and Ph 3 eligible (n=10)*	10	1	90%

*One subject with circumpapillary tumor that doesn't meet Ph 3 criteria is not included

90% Visual Acuity Preservation Supports Front Line Therapy for Early-Stage Disease

Safety Supports Potential First Line Treatment in Early-Stage Disease

Ongoing Ph 2 Safety Outcomes with SC Administration				
All Treated Subjects (n=22) Drug/Laser Related Adverse Events >5% Subjects*	**Grade I**	**Grade II**	**Grade III**	**Total**
Anterior Chamber Inflammation	18%	0	0	18%
Anterior Chamber Cell	9%	0	0	9%
Eye Pain	9%	0	0	9%

Table presents percentage of subjects with AEs related to bel-sar or laser by severity and overall; subjects with more than 1 AE are counted in the highest severity group
*Treatment-emergent AEs related to bel-sar or laser in 1 patient each or <5% (anisocoria, conjunctival edema, cystoid macular edema, pupillary reflex impaired, retinal pigment epitheliopathy, salivary gland enlargement)

August 3, 2023, data on file Aura Biosciences

Adverse Event	Radiotherapy*	Bel-Sar+
Surgeries secondary to AEs+ (e.g., Cataracts)	**40%+**	0%
Radiation Retinopathy	**40%+**	0%
Neovascular Glaucoma	**10%**	0%
Dry Eye Syndrome	**20%**	0%
Strabismus	**2%+**	0%
Retinal Detachment	**1-2%**	0%
Vision Loss (≥15 letters)	**~70%**	~5%

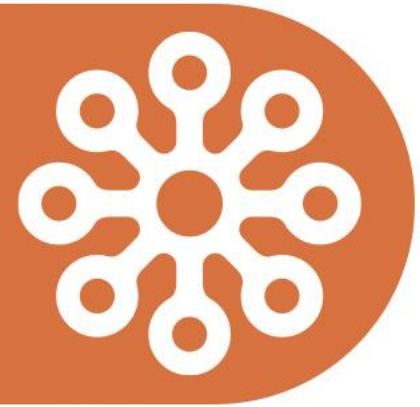
Serious Adverse Event	Radiotherapy*	Bel-Sar+
Scleral Necrosis	**0-5%**	**0%**
Enucleation/Eye Loss	**10-15%**	**0%**
Severe Vision Loss (≥30 letters) in HRVL**	**~90%**	**0%++**

*Cross-trial comparison of Radiotherapy and AU-011-202 with suprachoroidal administration
+Related to bel-sar or laser
**73% (16/22) of patients in Ph2 SC trial were at high risk for vision loss

No Posterior Inflammation, No SAEs and No Grade 3 Related Adverse Events

*J. Contemp Brachytherapy. J. 2019 Aug; 11(4): 392–397.; Arch Ophthalmol. 2000;118(9):1219-1228; Curr. Opin. Ophthalmol. 2019 May;30(3):206-214; Eye 2017 Feb;31(2):241-257
**High-Risk Vision Loss (HRVL) are those subjects with tumors <3mm to fovea or optic nerve
Bel-Sar – Belzupacap Sarotalocan; AEs – Adverse Events; SAEs – Serious Adverse Events

Randomized Controlled Global Ph 3 Trial



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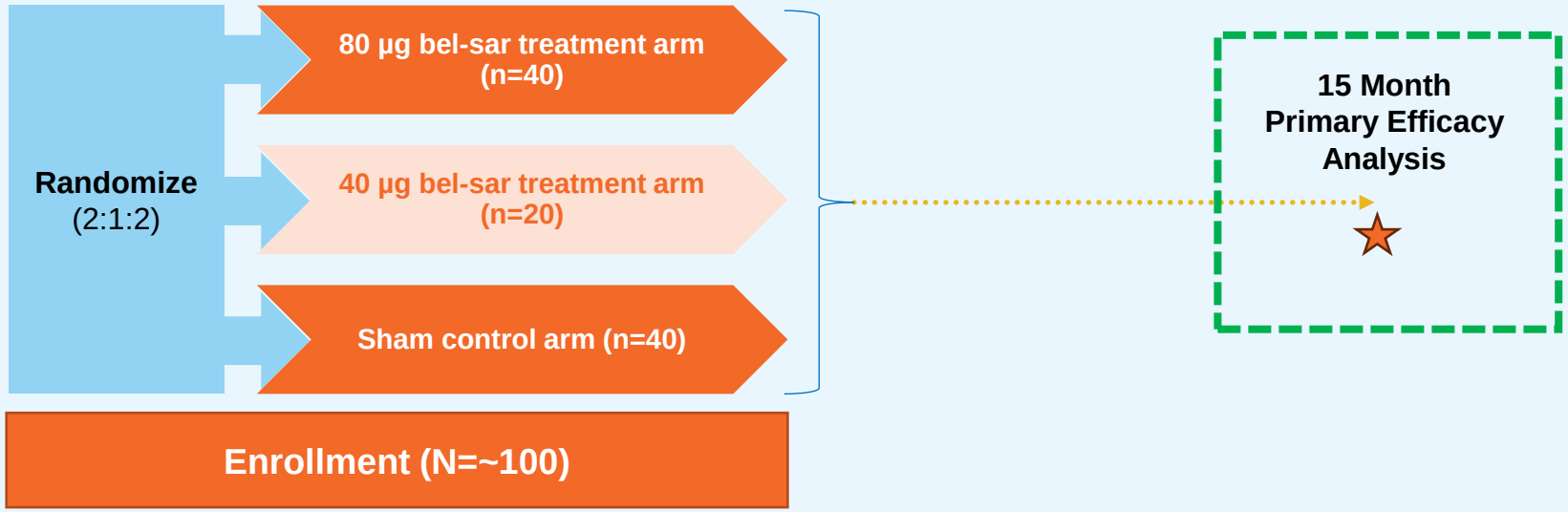
SPA Agreement with FDA Supports Global Ph 3 Trial Design

Fast Track and Orphan Designations



Primary Endpoint

- Time to Tumor Progression

First Key Secondary Endpoint

- Time to Composite Endpoint: Tumor Progression or Visual Acuity Failure

A SPA Indicates Concurrence by the FDA that the Design of the Trial can Adequately Support a Regulatory Submission

SPA – Special Protocol Assessment; Bel-sar – Belzupacap Sarotalocan