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Corporate Presentation

August 2024

Legal Disclosure

This presentation contains forward-looking statements, all of which are qualified in their entirety by this cautionary statement. Many of the forward-looking statements contained herein can be identified by the use of forward-looking words such as "may", "anticipate", "believe", "could', "expect", "should", "plan", "intend", "estimate", "will", "potential" and "ongoing", among others, although not all forward-looking statements contain these identifying words. These forward-looking statements include statements about the initiation, timing, progress, results and cost of our research and development programs and our current and future preclinical studies and clinical trials, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available and our research and development programs; our ability to successfully manufacture our drug substances and product candidates for preclinical use, for clinical trials and on a larger scale for commercial use, if approved; the ability and willingness of our third-party strategic collaborators to continue research and development activities relating to our development candidates and product candidates; our ability to commercialize our products, if approved; our ability to obtain funding for our operations necessary to complete further development and commercialization of our product candidates; our ability to obtain and maintain regulatory approval of our product candidates; the size and growth potential of the markets for our product candidates and our ability to serve those markets; our financial performance; our expected cash runway into the second half of 2026; and the implementation of our business model, including strategic plans for our business and product candidates.

Except as otherwise noted, these forward-looking statements speak only as of the date of this presentation, and we undertake no obligation to update or revise any of such statements to reflect events or circumstances occurring after this presentation. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. For a discussion of these and other risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in our most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (SEC), as well as discussions of potential risks, uncertainties, and other important factors in our other subsequent filings with the SEC, which are available on the SEC's website at www.sec.gov. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. We caution you not to place undue reliance on the forward-looking statements contained in this presentation.

This presentation discusses product candidates that are under preclinical or clinical evaluation and that have not yet been approved for marketing by the U.S. Food and Drug Administration (FDA) or any other regulatory authority. Until finalized in a clinical study report, clinical trial data presented herein remain subject to adjustment as a result of clinical site audits and other review processes. No representation is made as to the safety or effectiveness of these product candidates for the use for which such product candidates are being studied.

This presentation shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of these securities in any state or other jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or other jurisdiction.

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Well Positioned with Multiple Near-Term Clinical Catalysts

Precision Therapy Platform

- Developing a novel class of drugs called virus-like drug conjugates (VDCs)
- Direct tumor cell killing and immune activation
- Focal treatment approach to deliver durable response

Late-Stage Clinical Development

- Phase 3 in Primary Uveal Melanoma Ongoing
- FDA SPA[1] Agreement

Large Market Opportunity In Areas of Unmet Need

- Ocular Oncology >60,000 patients/yr (US/EU)[2]
- Urologic Oncology ~500,000 patients/yr (globally)[3]

Key Upcoming Catalysts

- Multiple clinical data readouts expected within next 6-12 months, including early Phase 1 bladder data
- Cash expected to fund operations into 2H 2026

1. Special Protocol Assessment (SPA).
2. See sources on slide 9 of this presentation.
3. Bladder cancer. Putnam & Assoc. Epidemiology Analysis.

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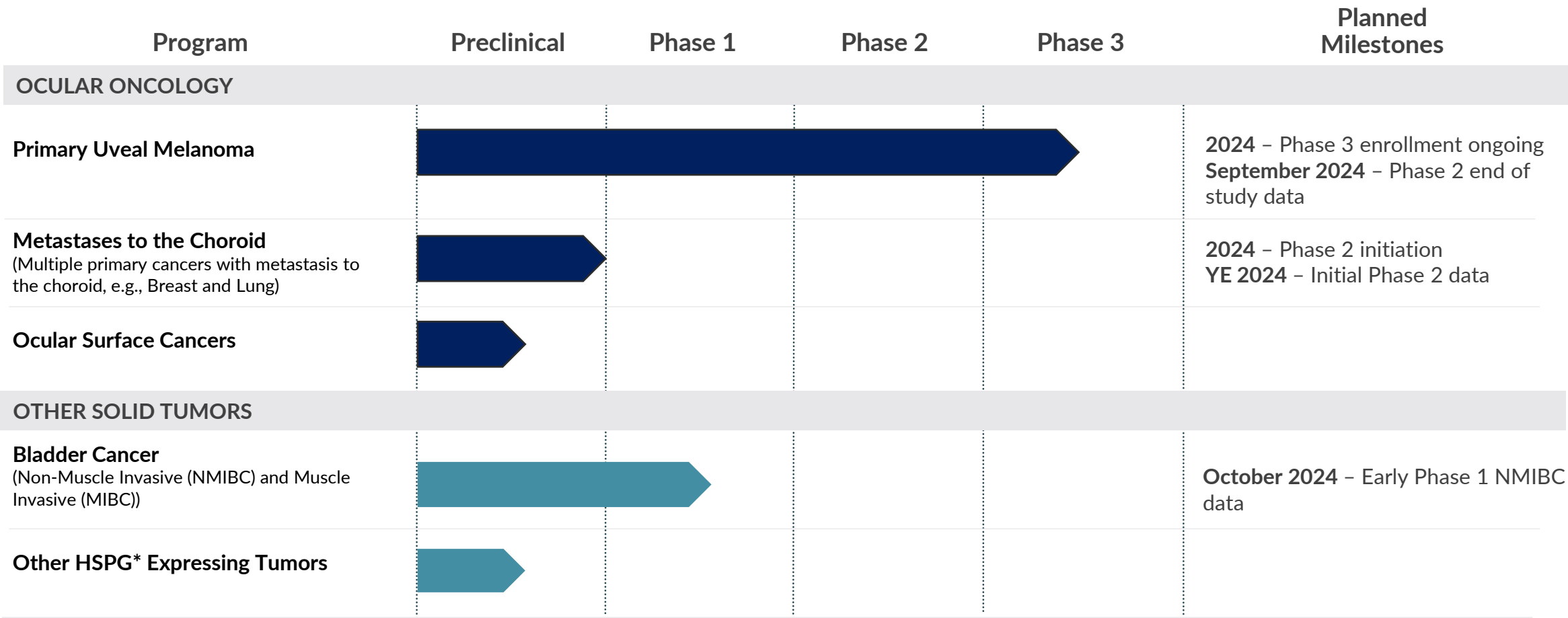
Clinical Pipeline Across Multiple Solid Tumor Indications



*Virus-like drug conjugates (VDCs) bind to a subset of modified tumor associated glycosaminoglycans (GAGs) that are part of the heparan sulphate chain of heparan sulfate proteoglycans (HSPGs). *Schiller et al. Viruses* 2022, 14(8), 1656

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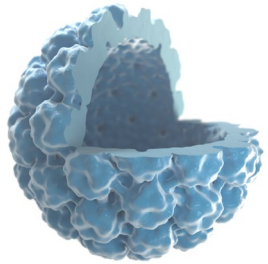
Bel-sar is a Potential First-in-Class Therapy for Multiple Solid Tumors

Bel-sar (AU-011) is a VDC Designed with Dual Specificity to Reduce Potential for Off-target Effects:

- Selectively binds to tumor cells (not to local healthy tissue)
- Activated only at site of laser administration

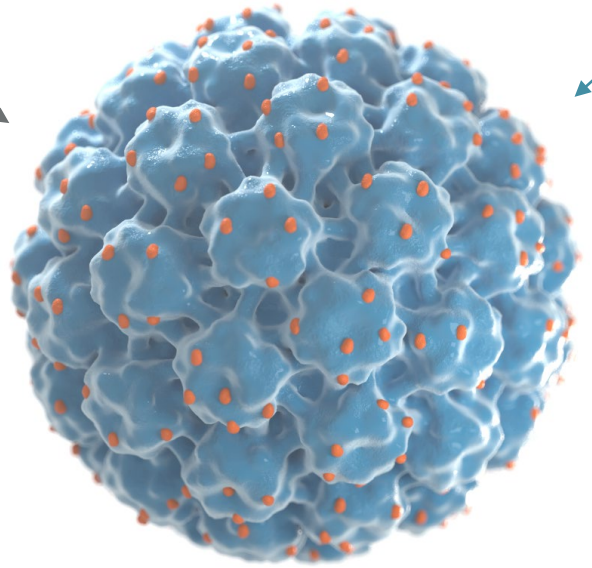
Virus-like drug conjugates (VDCs) are a novel technology platform

Virus-like particle (VLP)



- Non-replicating viral capsid (no genetic material)
- Derived from HPV
- Multivalent binding to mHSPGs on solid tumor cells

Light-activatable molecules



- VLP conjugated to ~200 molecules of phthalocyanine dye
- Activated by standard NIR laser

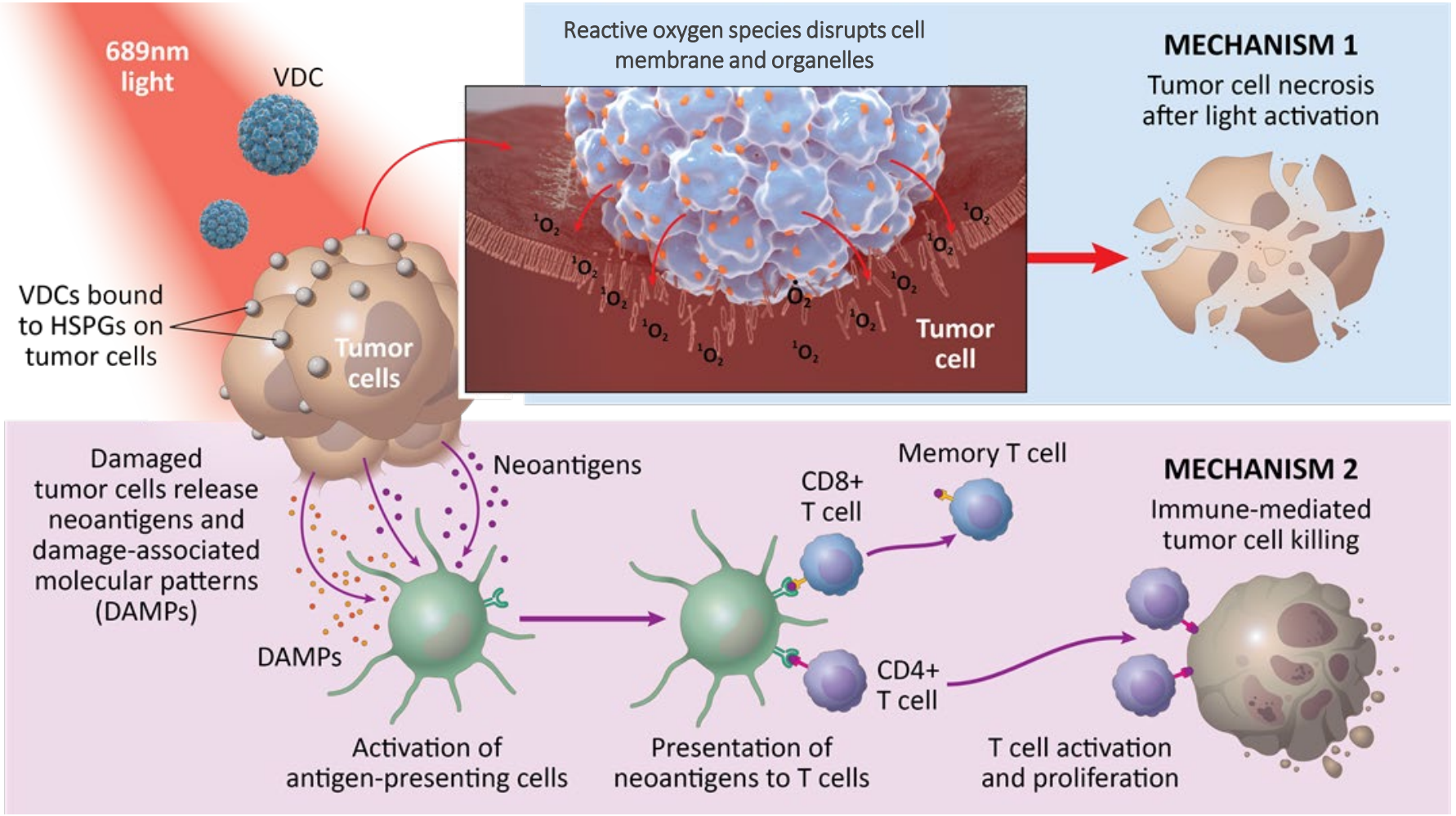
Bel-sar (AU-011)

VDCs selectively deliver direct tumor cell killing and immune activation

Fleury MJJ et al. *Mol Biotechnol.* 2014;56(5):479-86. Kines RC, et al. *Int J Cancer.* 2016;138(4):901–11. Kines RC, et al. *Mol Cancer Ther.* 2018;17(2):565–74. Kines RC, et al. *Cancer Immunol Res.* 2021;9:693–706. **HPV**, human papillomavirus; **mHSPG**, modified heparan sulphate proteoglycan; **NIR**, near infrared; **VDC**, virus-like drug conjugate; **VLP**, virus-like particle.

Bel-sar is a VDC with a novel dual mechanism of action

Disruption of the tumor cell membrane and pro-immunogenic cell death by necrosis leads to T cell activation and immune-mediated tumor cell killing



Kines RC, et al. *Int J Cancer*. 2016;138(4):901–11. Kines RC, et al. *Mol Cancer Ther*. 2018;17(2):565–74. Kines RC, et al. *Cancer Immunol Res*. 2021;9:693–706.
DAMPs, damage-associated molecular patterns; **HSPG**, heparan sulfate proteoglycan; **VDC**, virus-like drug conjugate; **VLP**, virus-like particle. **Bel-sar**, AU-011

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Ocular Oncology Therapeutic Area

Bel-sar

Target Indications:

- Primary Uveal Melanoma
- Metastases to the Choroid
- Ocular Surface Cancers

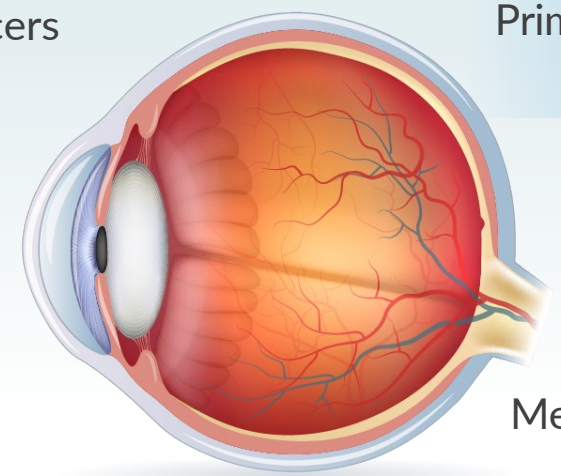
Bel-sar Opportunities in Ocular Oncology Represent a Multi-billion-dollar Addressable Market

~66,000 patients/year

Ocular Oncology Total Addressable Market (US/EU)

Ocular Surface Cancers
~35,000 patients/year[3]

Primary Uveal Melanoma
~11,000 patients/year[1]



Retinoblastoma
~500 patients/year[2]

Metastases to the Choroid
~20,000 patients/year[1]

~80%
of patients are diagnosed at the early stage (indeterminate lesions (ILs) and small tumors)

Current radiotherapy treatment
Leaves up to 87% of patients with major irreversible vision loss

~100
Ocular Oncologists in US/EU — focused call point opportunity

<20
Field Based Team — Intend to add small sales force to launch globally

1. ClearView & Putnam & Assoc. Epidemiology Analysis Choroidal Melanoma and Choroidal Metastasis
2. American Cancer Society- Retinoblastoma statistics
3. Includes Conjunctival Melanoma, Primary Acquired Melanosis, Squamous Cell Carcinoma and Ocular Surface Squamous Neoplasia
(https://pubmed.ncbi.nlm.nih.gov/12788119/; https://pubmed.ncbi.nlm.nih.gov/19628487/; https://pubmed.ncbi.nlm.nih.gov/8676629/; https://pubmed.ncbi.nlm.nih.gov/29511061/; https://pubmed.ncbi.nlm.nih.gov/9037556/)

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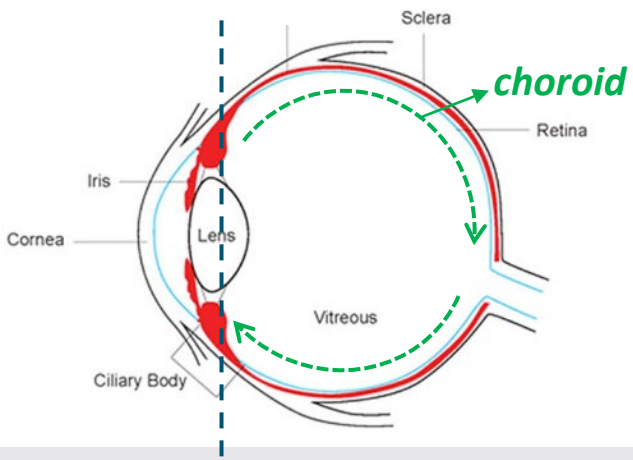
Primary Uveal Melanoma—High Unmet Medical Need

Choroid is 90%
of the uvea[1]

50% of patients develop metastasis within 15 years (metastatic uveal melanoma)[2]

Uvea: Choroid, Ciliary Body and Iris



Most common primary intraocular cancer in adults[2]

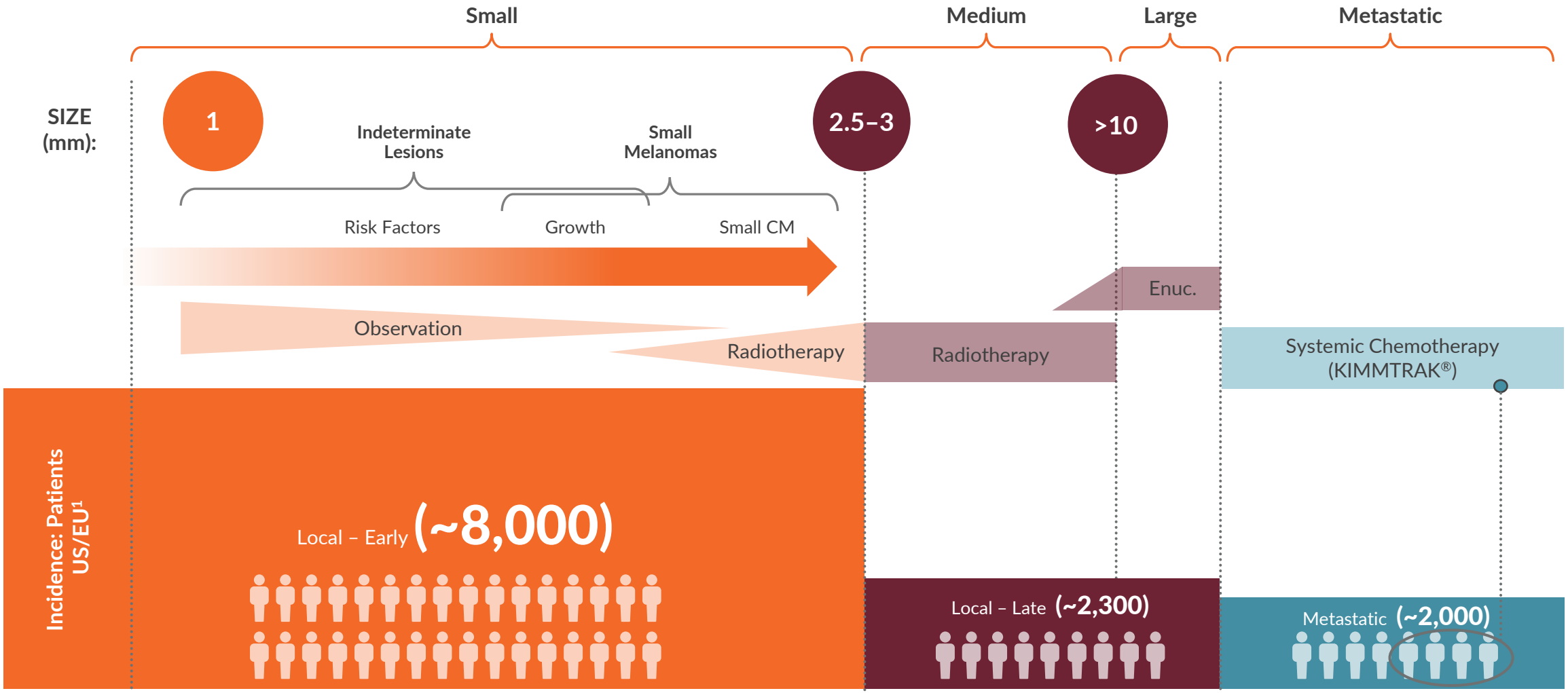
Impacts **~11,000** patients in US/EU per year[3]

~80% patients diagnosed with **early-stage disease**[3]

Primary Uveal Melanoma is a Rare and Life-Threatening Ocular Cancer with No Drugs Approved

1. Heiting, G. Iris/uvea of the eye. Accessed Oct. 3, 2023. https://www.allaboutvision.com/en-gb/resources/uvea-iris-choroid/
2. Kaliki S, Shields CL. Uveal melanoma: relatively rare but deadly cancer. *Eye* (Lond). 2017;31(2):241-257. doi:10.1038/eye.2016.275
3. Clearview & Putnam & Assoc. Market Research

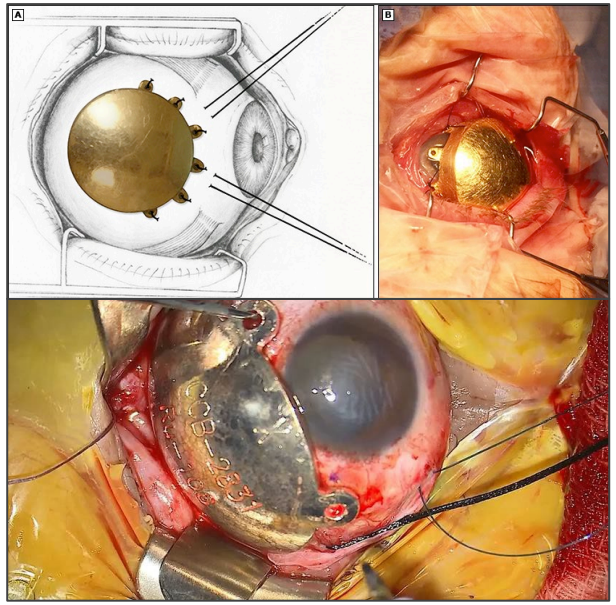
Current Treatment Paradigm for Uveal Melanoma

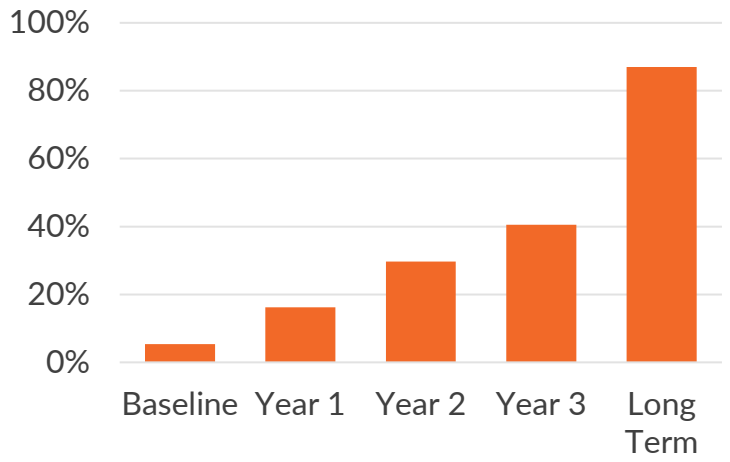


1. Each figure represents ~250 persons.
Shields CL et al. Choroidal and ciliary body melanoma. Available at: https://eyewiki.aao.org/Choroidal_and_Ciliary_Body_Melanoma. Accessed May 2, 2024.
Epidemiology analysis for choroidal melanoma and choroidal metastasis by ClearView Healthcare Partners and Putman.
Enuc., enucleation. CM, Choroidal Melanoma.

High Morbidity Associated with Current Standard of Care

Up to 87% of Primary Uveal Melanoma Patients Become Legally Blind Over Time in the Eye Treated with Radiotherapy[1,2]



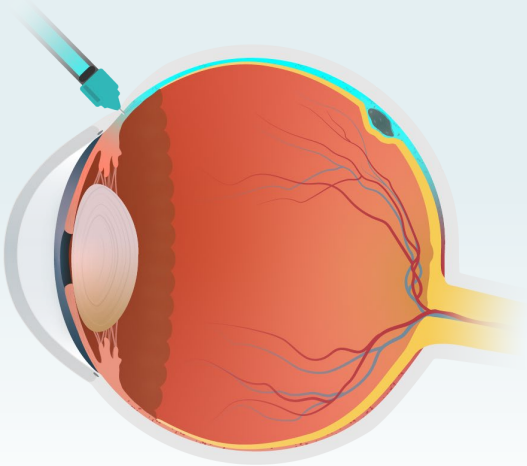


	Radiotherapy[3–7]
Adverse Event	
Surgeries secondary to AEs (e.g., cataracts)	40%+
Radiation retinopathy	40%+
Neovascular glaucoma	10%
Dry eye syndrome	20%
Strabismus	2%+
Retinal detachment	1-2%
Vision loss (≥15 letters)	~70%
Long-term legal blindness (≤20/200)	~90%
Serious Adverse Event	
Scleral necrosis	0-5%
Enucleation/eye loss	10-15%
Severe vision loss (≥30 letters) in HRVL	~90%

1. Jarczak J, Karska-Basta I, Romanowska-Dixon B. Deterioration of visual acuity after brachytherapy and proton therapy of uveal melanoma, and methods of counteracting this complication based on recent publications. *Medicina* (Kaunas). 2023;59(6):1131. 2. Tsui I, Beardsley RM, McCannel TA, Oliver SC, et al. Visual acuity, contrast sensitivity and color vision three years after iodine-125 brachytherapy for choroidal and ciliary body melanoma. *Open Ophthalmol J*. 2015;9:131-5. 3. Shields CL et al. Arch Ophthalmol. 2000;118(9):1219-1228. 4. Peddada KV et al. J Contemp Brachytherapy. 2019;11(4):392-397. 5. Jarczak J et al. Medicina (Kaunas). 2023;59(6):1131. 6. Shields CL et al. Curr Opin Ophthalmol. 2019;30(3):206-214. 7. Kaliki S, Shields CL. Eye 2017;31(2):241-257. AE, adverse event; BCVA, best-corrected visual acuity; HRVL, high-risk for vision loss.

Bel-sar has the Potential to be the First Approved Therapy in Primary Uveal Melanoma

Bel-sar is Delivered by Simple Suprachoroidal Injection



Two ~2 minute Injections

Light Activation with Standard Ophthalmic Laser

Two ~5 minute Lasers

In-Office Procedure

Goals of Treatment

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

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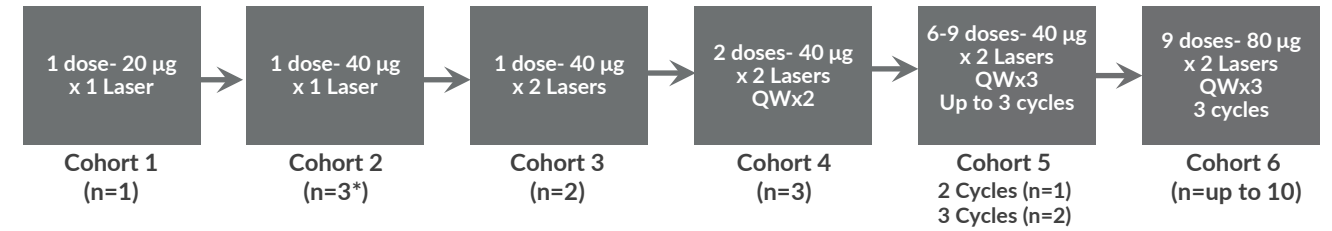
Phase 2 Trial – Dose Escalation and Expansion with Suprachoroidal Administration

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

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)



Subtherapeutic Regimens	Therapeutic Regimen
N=10 1- 2 Doses (n=9); 2 cycles-6 doses (n=1)	N=11** 3 Cycles (9 doses)

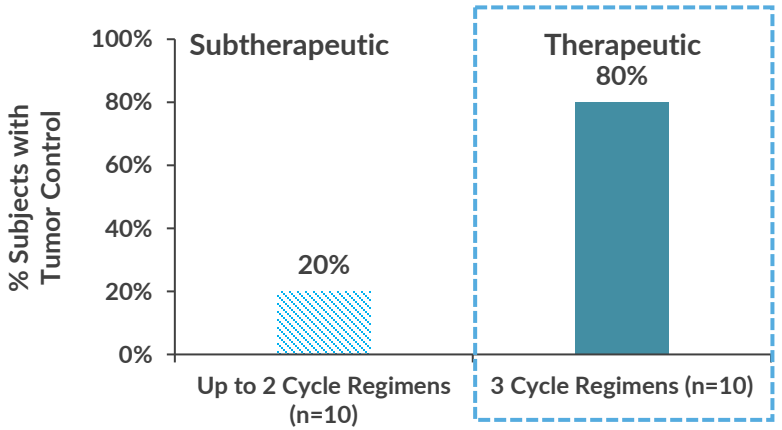
One Cycle = Doses on days 1, 8 and 15

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).
ClinicalTrials.gov Identifier: NCT04417530 ; AU-011-202

Phase 2 Interim Data Demonstrates Tumor Control, Vision Preservation and a Favorable Safety Profile

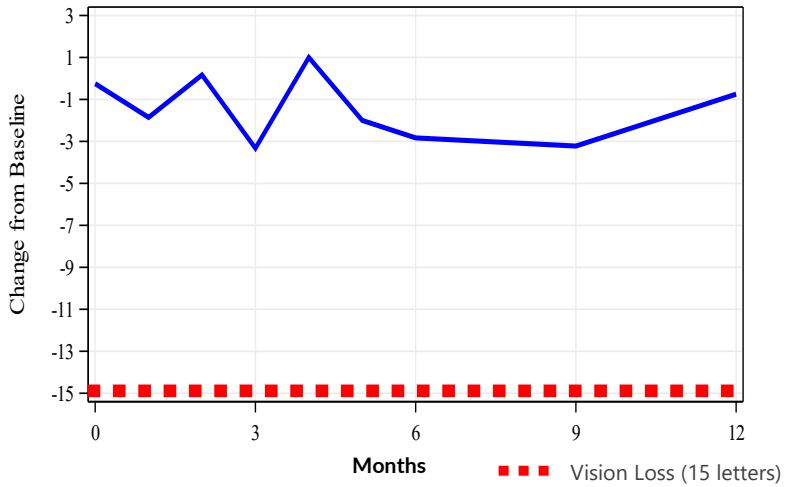
80% Tumor Control Rate



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

90% Visual Acuity Preservation Rate

Median Change in BCVA in Phase 3 Eligible Patients with Therapeutic Regimen (n=10)



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

<20% Grade 1 AEs

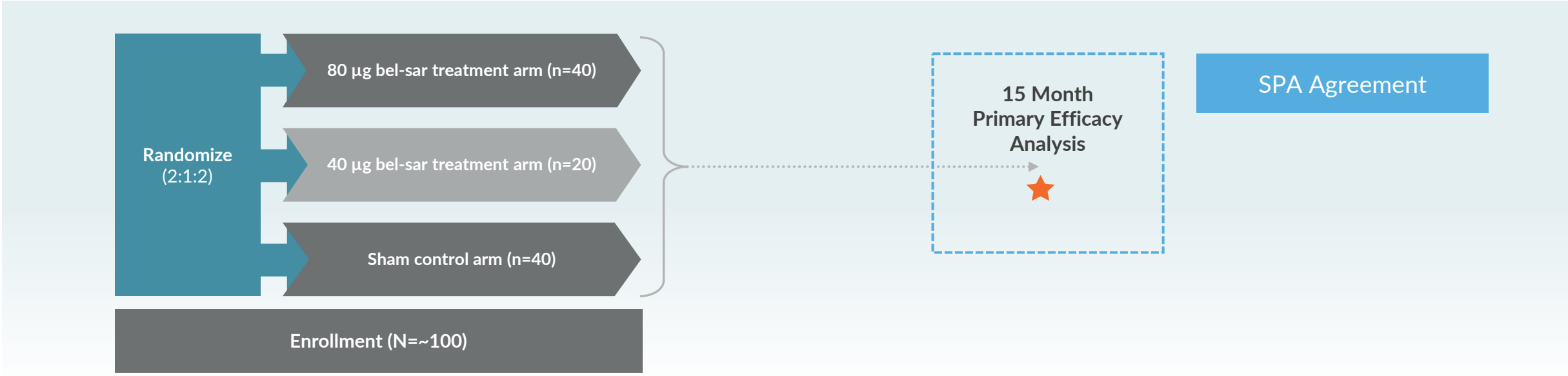
Ongoing Ph 2 Safety Outcomes with SC Administration				
All Treated Subjects (n=22) Drug/Laser Related Adverse Events >5% Subjects*	Grade I	Grade II	Grade III	Total
Anterior Chamber Inflammation	18%	0	0	18%
Anterior Chamber Cell	9%	0	0	9%
Eye Pain	9%	0	0	9%

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

SPA Agreement with FDA Supports Global Phase 3 Trial Design

Fast Track and Orphan Drug Designations



Primary Endpoint

- Time to Tumor Progression

First Key Secondary Endpoint

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

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

SPA – Special Protocol Assessment

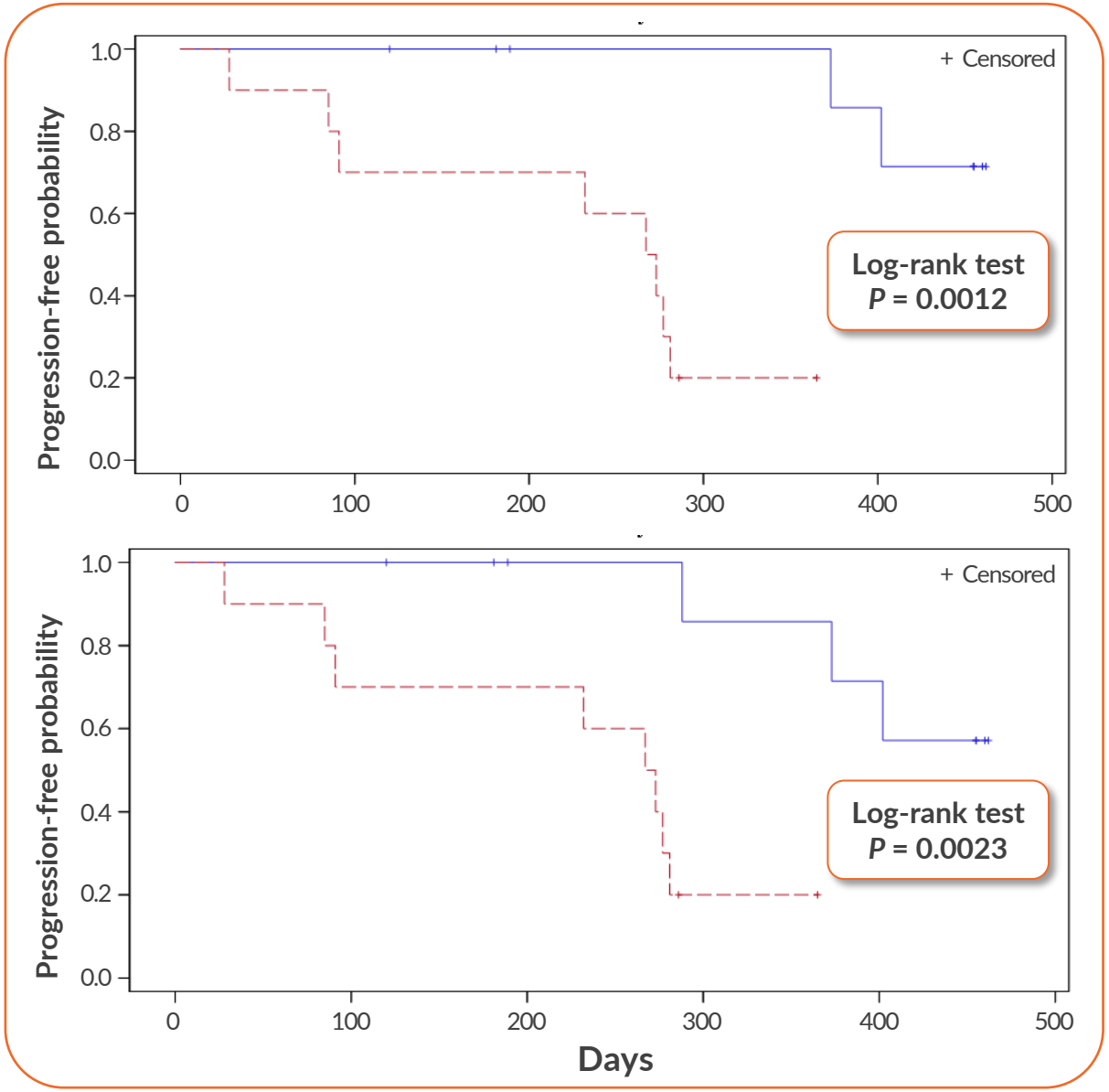
Kaplan-Meier analysis simulation of Phase 2 interim data support assumptions for the potential success of Phase 3 trial with high statistical significance

Time to tumor progression

Change from baseline in thickness ≥0.5 mm or in LBD ≥1.5 mm confirmed by at least one repeat assessment

Time to composite endpoint

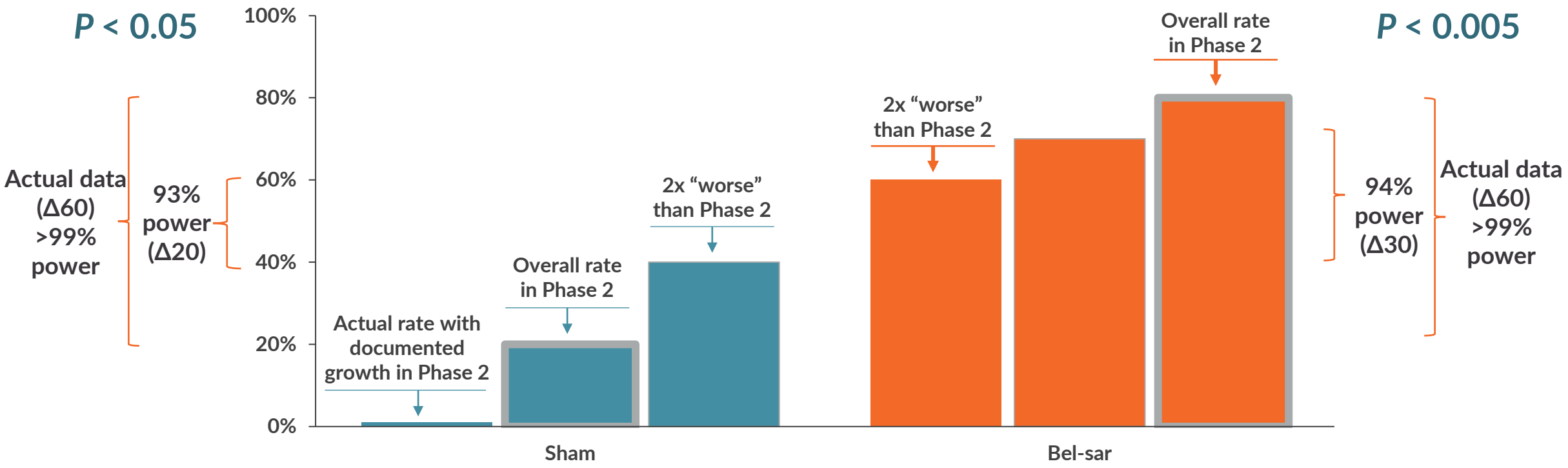
Time to tumor progression or vision acuity failure (≥15 letter loss in ETDRS-BCVA), whichever occurs earlier



Study duration 12 months. Participants either had an event or were censored at the last visit; some had their Week 52 visit after 365 days. Any events at the final visit are assigned to the actual time of that visit. Log-rank test p-value based on unsimulated original Kaplan-Meier curves. **BCVA,** best-corrected visual acuity; **ETDRS,** Early Treatment Diabetic Retinopathy Study; **LBD,** largest basal diameter. August 3, 2023 data on file, Aura Biosciences. ClinicalTrials.gov Identifier: NCT04417530; AU-011-202.

Phase 2 Interim Data Support Phase 3 Assumptions

Robustness Analysis of Phase 2 interim tumor control rates



Phase 3 trial design

Same dose, regimen, route of administration, range of tumor sizes and reading center as Phase 2 trial

- Similar population to Phase 2 participants receiving the therapeutic regimen
- Enriching for early documented growth; Phase 3 randomization stratified by growth rate

ClinicalTrials.gov Identifier: NCT06007690; AU-011-301.

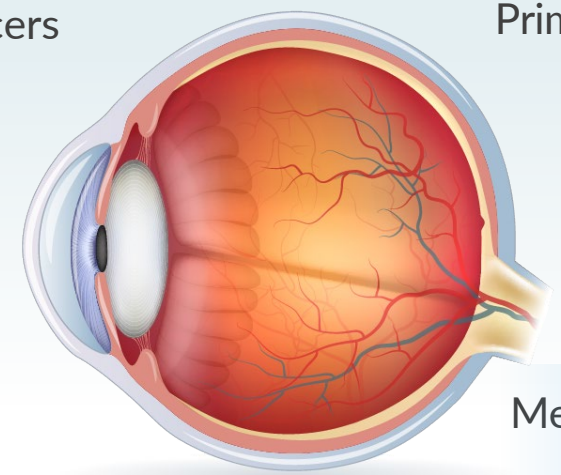
Bel-sar Opportunities in Ocular Oncology Represent a Multi-billion-dollar Addressable Market

~66,000 patients/year

Ocular Oncology Total Addressable Market (US/EU)

Ocular Surface Cancers
~35,000 patients/year[3]

Primary Uveal Melanoma
~11,000 patients/year[1]



Retinoblastoma
~500 patients/year[2]

Metastases to the Choroid
~20,000 patients/year[1]

Majority originate from breast and lung cancer

Burdensome Standard of Care with Radiation Morbidities

Daily treatments of radiotherapy for 4 weeks

~100

Ocular Oncologists in US/EU — focused call point opportunity

<20

Field Based Team — Intend to add small sales force to launch globally

1. ClearView & Putnam & Assoc. Epidemiology Analysis Choroidal Melanoma and Choroidal Metastasis
2. American Cancer Society- Retinoblastoma statistics
3. Includes Conjunctival Melanoma, Primary Acquired Melanosis, Squamous Cell Carcinoma and Ocular Surface Squamous Neoplasia (https://pubmed.ncbi.nlm.nih.gov/12788119/; https://pubmed.ncbi.nlm.nih.gov/19628487/; https://pubmed.ncbi.nlm.nih.gov/8676629/; https://pubmed.ncbi.nlm.nih.gov/29511061/; https://pubmed.ncbi.nlm.nih.gov/9037556/)

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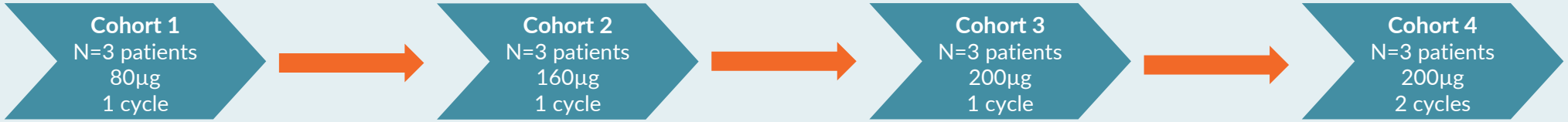
Metastases to the Choroid – Phase 2 Trial Expected to Begin in 2024

Planned Study Design (n=12*)



Study Objectives

- Safety/Dose-limiting Toxicity
- Efficacy
  - Change in Tumor Size
  - Change in Vision Letter Score

Study Population

- Patients with Unilateral, Unifocal Metastases to the Choroid
- Breast or Lung Primary
- No Changes in Concurrent Systemic Medications Planned

Highlights: Primary Endpoint at One-month Post-treatment; Possibility to See Tumor Shrinkage and Vision Improvement

*3+3 Design. Each cohort to have a minimum of 3 and a maximum of 6 patients.

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Urologic Oncology Therapeutic Area

Bel-sar

Target Indications:

- Non-muscle invasive bladder cancer
- Muscle invasive bladder cancer

Bladder Cancer is a Global High Unmet Medical Need

~500,000

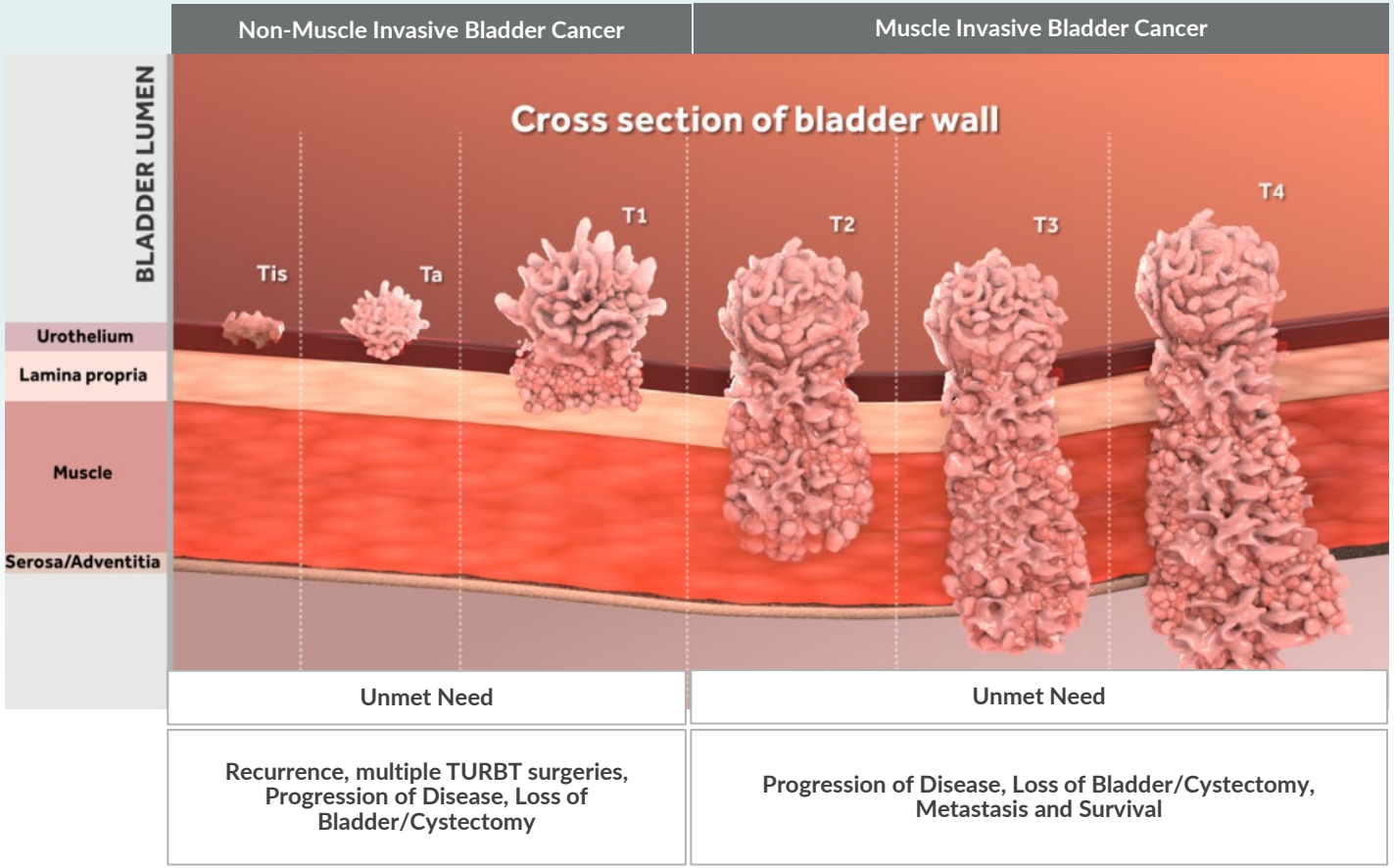
New cases/ year globally[1]

>200,000 NMIBC

New cases/year US, Europe & Asia[1]

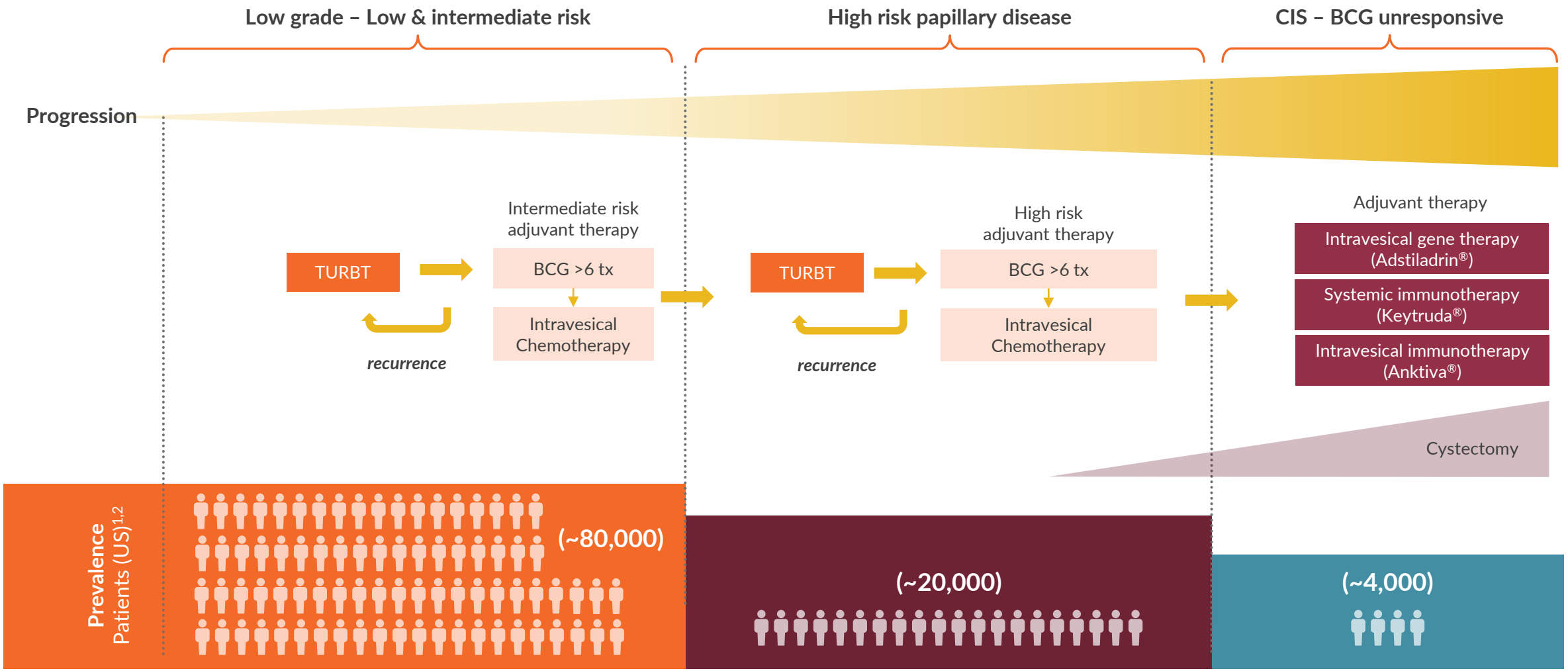
>60,000 MIBC

New cases/year US, Europe & Asia[1]



1. Bladder cancer. Putnam & Assoc. Epidemiology Analysis.

Current Treatment Paradigm for Non-Muscle Invasive Bladder Cancer



1. Each figure represents 1000 persons.
2. Holzbeierlein JM et al. *J Urol.* 2024 Apr 25:101097JU0000000000003981 [epub ahead of print]. Holzbeierlein JM et al. *J Urol.* 2024 Apr;211(4):533-538. Internal Aura epidemiology of market size data on file.

BCG, Bacillus Calmette-Guérin; **TURBT,** transurethral resection of the bladder.

Bel-sar as Potential Front-Line Therapy in NMIBC may be Optimized for In Office-based Procedure

Bel-sar's Local Administration Aligned with Current Urologic Oncology Practice

- No Virus Replication or Viral Shedding
- Lasers and Bladder Injections (e.g. Botox) are Commonly Used

Goals of Treatment with Bel-sar

- Focal Treatment with Direct Tumor Cell Killing
- Stimulate Anti-tumor Specific T Cell Response
- Reduce Risk of Recurrence
- Avoid TURBT /Operating Room

Bel-sar has a Dual Mechanism of Action and its Local Administration is Aligned with Clinical Practice

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Phase 1 trial for bladder cancer designed to evaluate safety, feasibility and MoA

21 participants

TURBT and cystectomy patients
NMIBC and MIBC patients

Part 1 (n=5)

Bel-sar alone

Completed

No treatment-related AEs, SAEs, or dose-limiting toxicities were seen in the 5 patients

Part 2 (n=16)

Bel-sar + focal light activation

NMIBC n=10	MIBC n=6

Ongoing

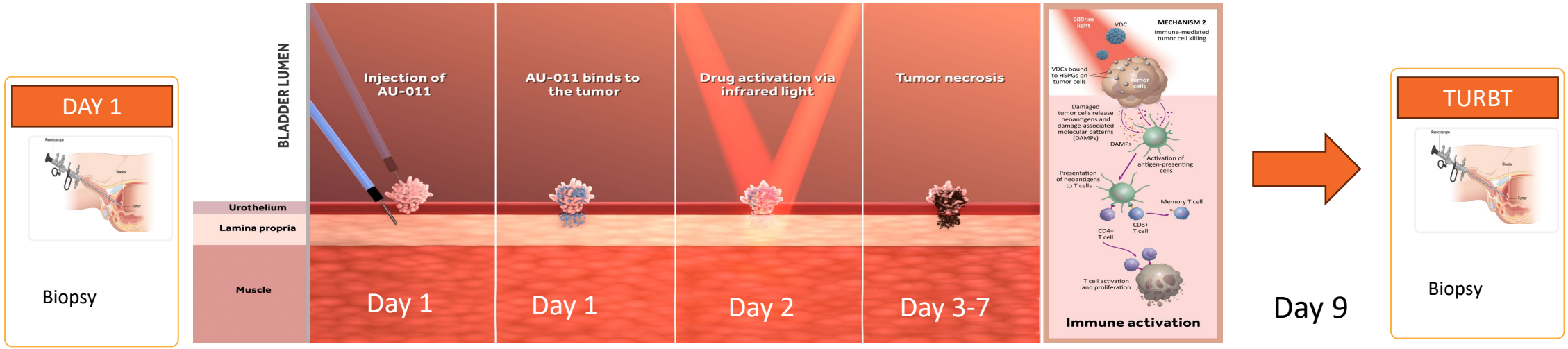
Study objectives

- **Safety & dose-limiting toxicity**
- **Feasibility of technique**
- **Focal distribution of bel-sar**
- **Focal necrosis**
- **Markers of immune activation**

AE, adverse event; **MIBC,** muscle invasive bladder cancer; **MoA,** mechanism of action; **NMIBC,** non–muscle invasive bladder cancer; **SAE,** serious adverse event; **TURBT,** transurethral resection of bladder tumor.
Clinicaltrials.gov identifier: NCT05483868; AU-011-102.

Clinical Complete Response with Immune Activation after Single Dose Confirmed by Histopathology

Ph 1- Preliminary Data Light Activated Cohort (n=1)



Day 1

Diagnostic biopsy shows non-invasive, low grade urothelial carcinoma
Injection of Bel-sar (100ug) performed within tumor and below tumor
(Aura present w/ Urologist)

Day 2

Urologist performs Light activation with 689nm infrared light (50J/cm^2)
(~5 min duration)
(Aura present w/ Urologist)

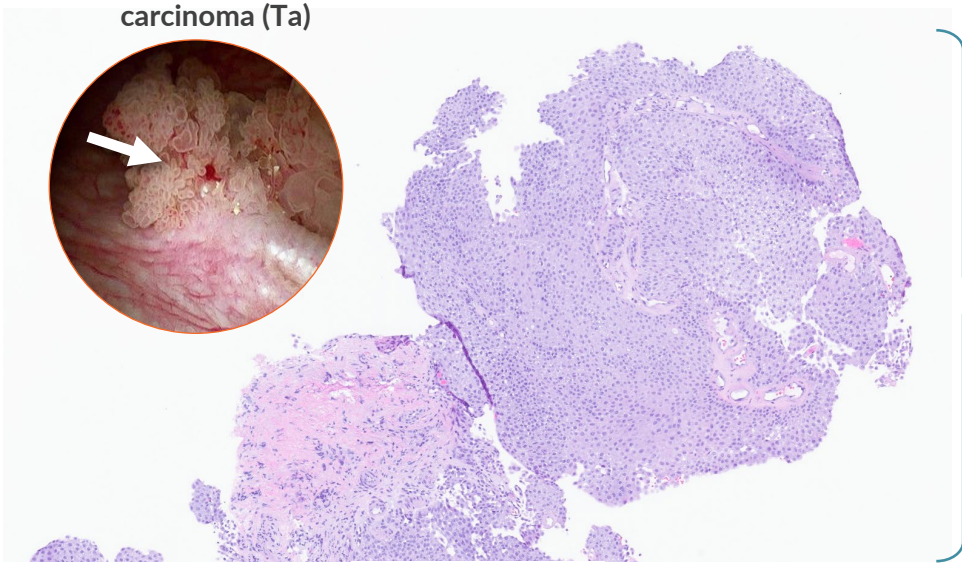
Day 9

Urologist performs TURBT in area where tumor used to be present. Biopsy shows denuded urothelial mucosa,
no cancer cells;
focal ulcer and chronic inflammation (eosinophils/lymphocytes)

Bel-sar (AU-011)
TURBT- transurethral resection of bladder tumor

Clinical Complete Response with Immune Activation after Single Dose Confirmed by Histopathology in Part 2 First Patient

Example of papillary carcinoma (Ta)



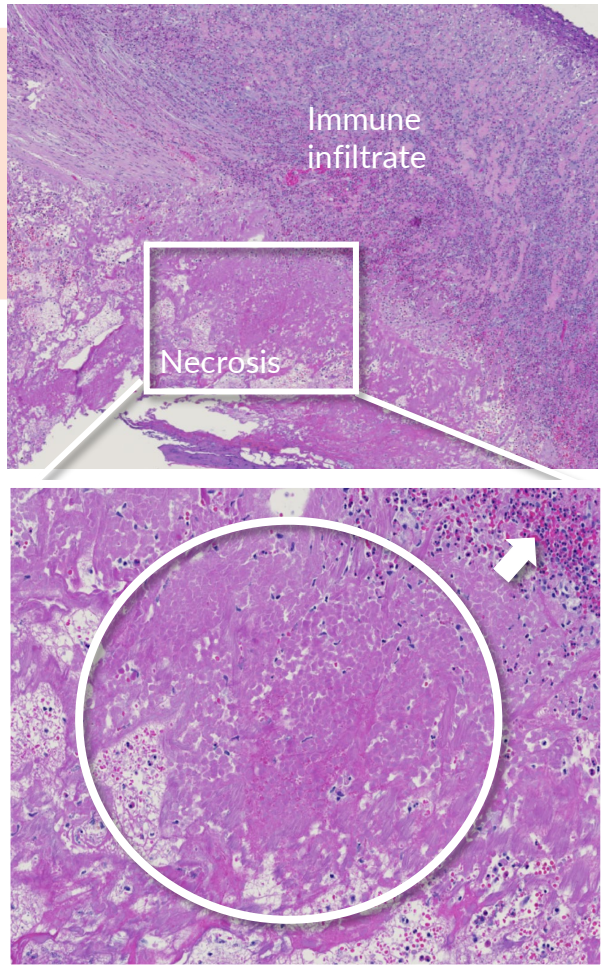
H&E stain

Pre-injection bladder biopsy demonstrating low-grade papillary urothelial carcinoma; non-invasive.

Papillary urothelial carcinoma

7 days after bel-sar treatment

Evidence of complete response by absence of tumor cells, as well as immune activation, after single dose treatment in first patient



Post-treatment TURBT demonstrating necrosis, inflammatory infiltrate, and no residual carcinoma. Circled region shows area of necrosis; arrow indicates edge of inflammatory infiltrate.

H&E, hematoxylin and eosin; **TURBT**, transurethral resection of the bladder. Clinicaltrials.gov identifier: NCT05483868; AU-011-102.

Company Highlights

Ocular Oncology Therapeutic Area

- **Primary Uveal Melanoma** – Global Phase 3 CoMpass Trial:
  - Trial actively enrolling
  - Special Protocol Assessment (SPA) Agreement with FDA
  - Phase 3 assumptions supported by Phase 2 data
- **Metastases to the Choroid** – Phase 2 trial planned to initiate in 2024
  - Second ocular indication potentially doubles market opportunity[1]
  - Initial data expected by year end 2024

Urologic Oncology Therapeutic Area

- **Bladder Cancer** – Phase 1 Trial
  - Clinical complete response in first patient with single dose
  - Company expects to present early non-muscle invasive bladder cancer data from ongoing Phase 1 trial at a urologic oncology investor event in October 2024

Corporate

- Strong cash position – expected to fund operations into 2H 2026
- Experienced leadership team across functions

1. ClearView & Putnam & Assoc. Epidemiology Analysis Choroidal Melanoma and Choroidal Metastasis.

Bel-sar (AU-011) is an investigational product candidate. The effectiveness and safety of bel-sar have not been established, and bel-sar is not approved for use in any jurisdiction.

aura

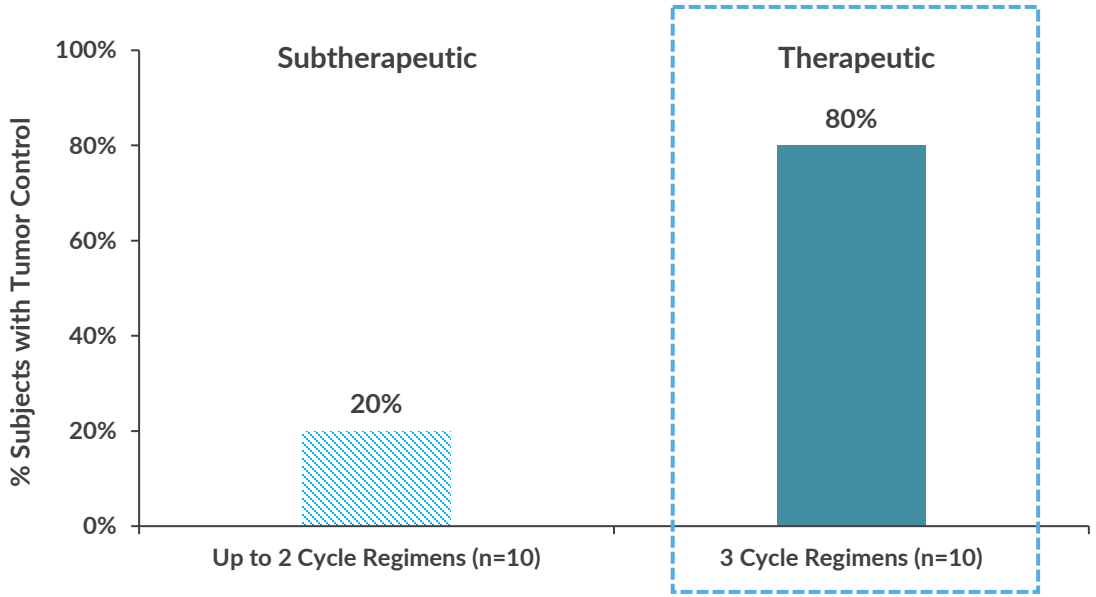
aura

Appendix:

Phase 2 Primary Uveal Melanoma Trial – Interim Data

High Local Complete Response Rate at 12 months Follow-up*

Dose Response: Subtherapeutic vs Therapeutic Regimen



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

>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 Phase 3 eligible (n=10)*	10	80% (8/10)

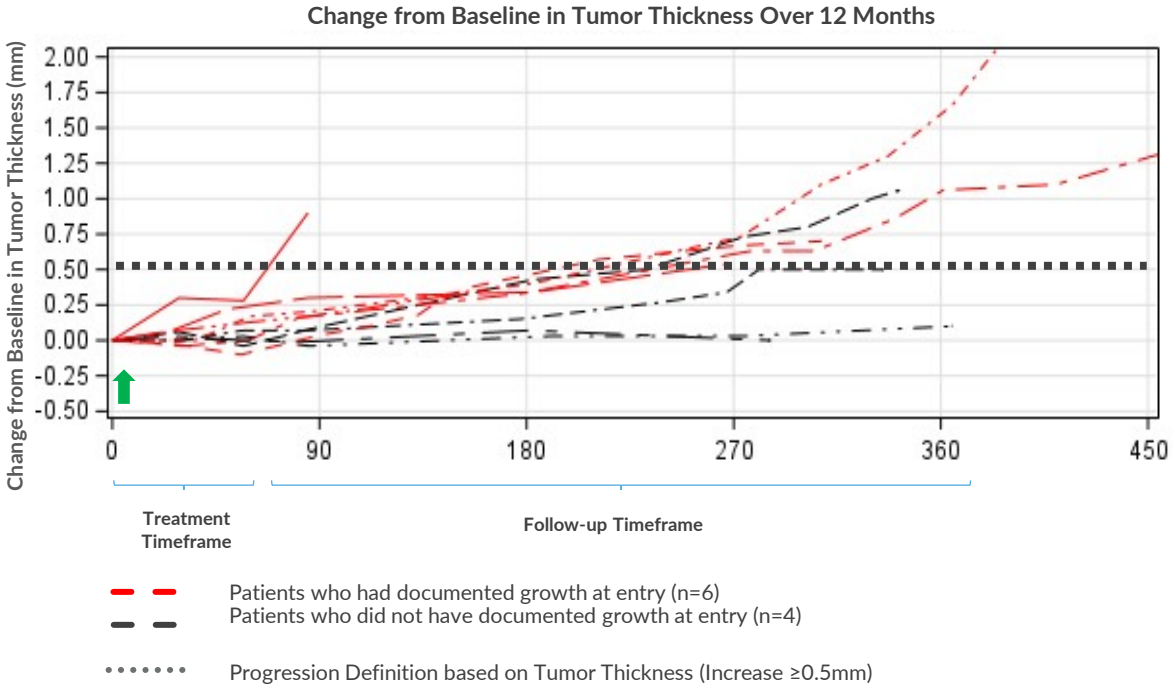
* One subject with circumpapillary tumor that did not meet Phase 3 criteria is not included

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

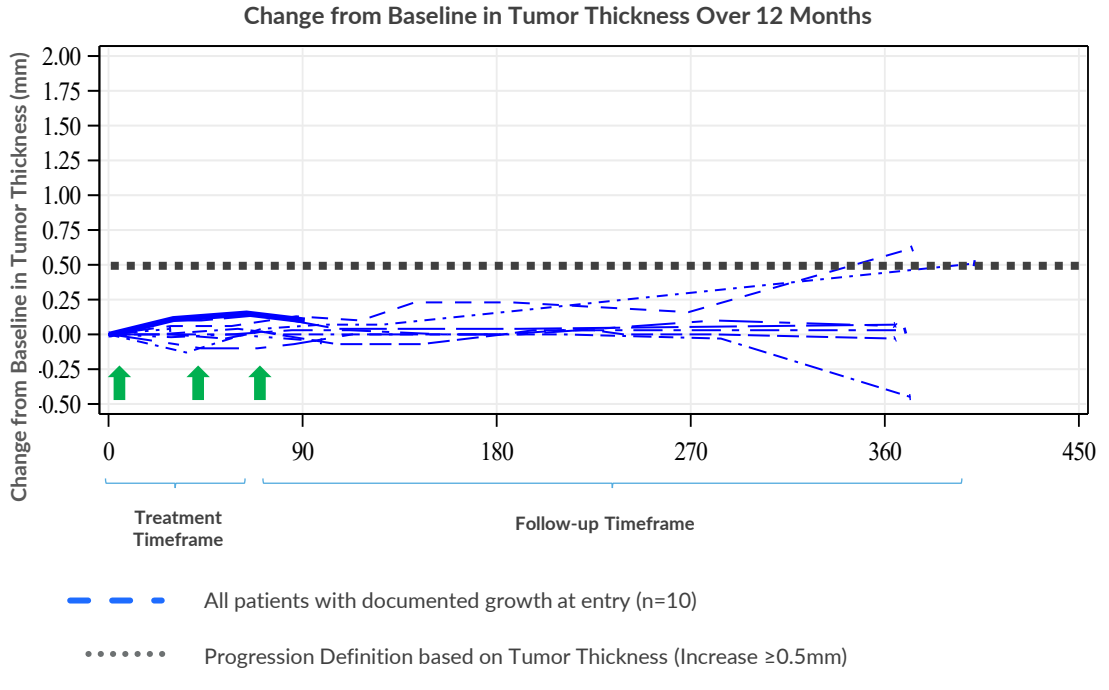
*A local complete response, or CR, in early-stage choroidal melanoma is described as tumor control and complete arrest of tumor growth by ocular oncologists.
Based on Phase 2 interim data, August 3, 2023.

High Tumor Control Rates Observed in Phase 3 Population Treated with Therapeutic Regimen in Phase 2

Subtherapeutic Regimens (n=10)



Active Growth and 3 Cycle Regimens (n=10)

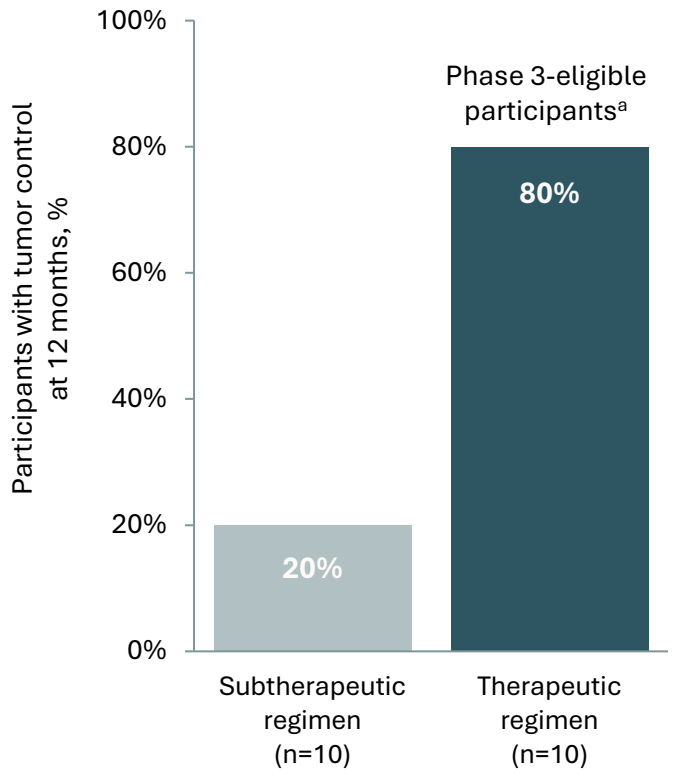


Phase 2 Interim Data Demonstrated Tumor Control Rate of 80%, with 90% of Patients at 12 Months of Follow Up

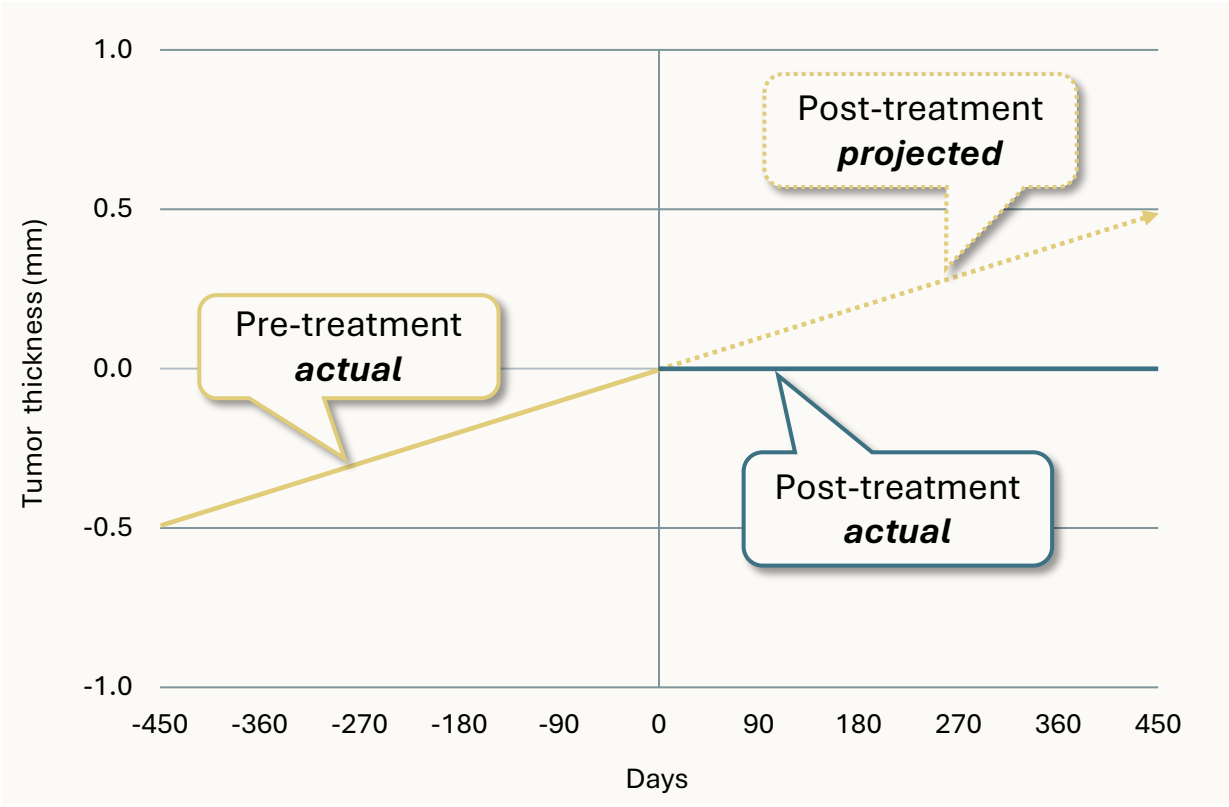
Based on Phase 2 interim data, August 3, 2023.

Bel-sar Therapeutic Regimen in Phase 2 Interim Data Achieved High Tumor Control Rates, with Complete Cessation of Growth Among Responders with Phase 3-eligible Tumors

80% tumor control rate at 12 months among phase 3-eligible patients



In phase 3-eligible tumors, the 3-cycle regimen was successful with **complete cessation of growth** among responders (n=8/10; $P < 0.0001$[b])

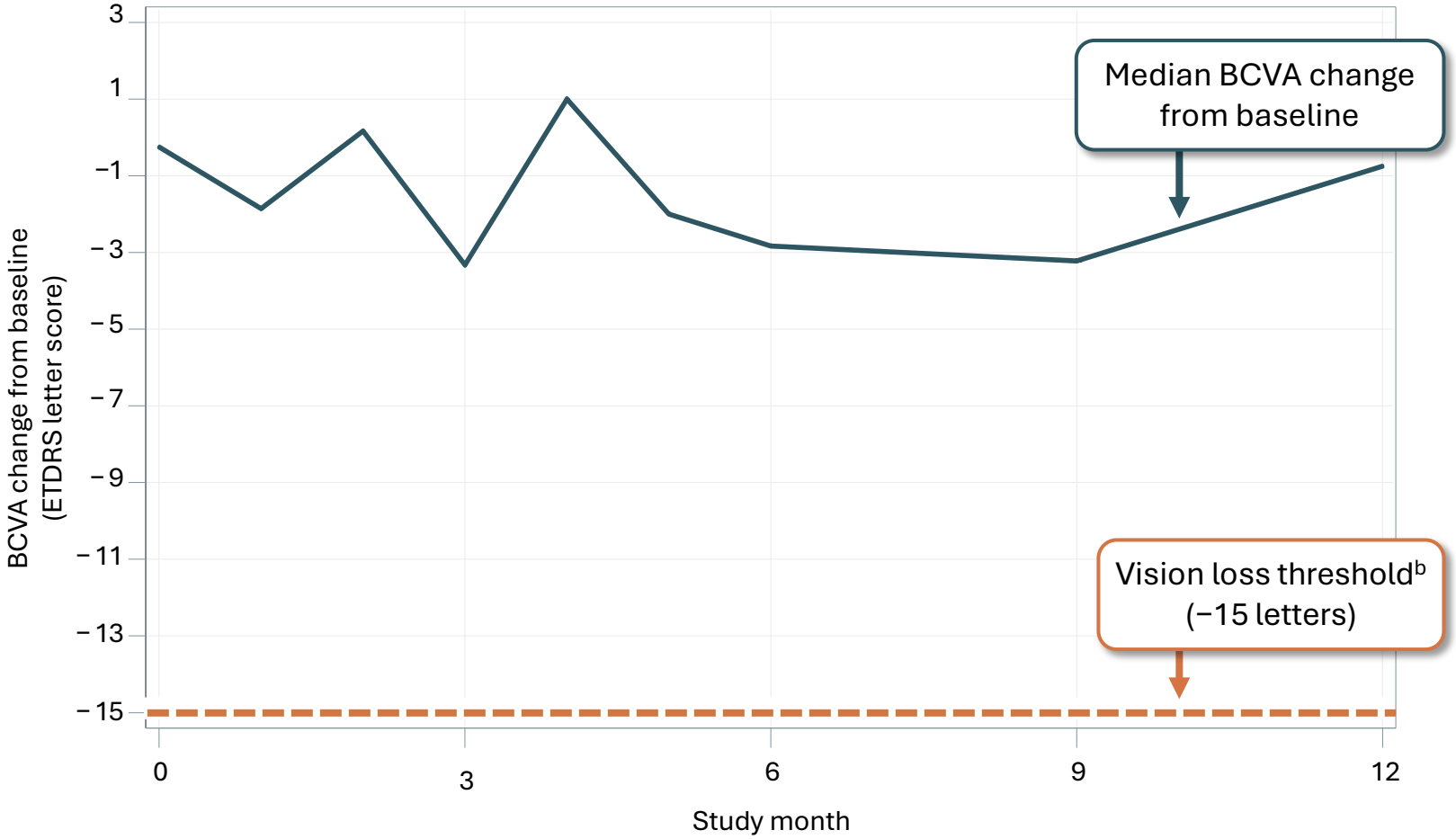


Tumor progression defined as change from baseline in thickness ≥0.5 mm; or in LBD ≥1.5 mm confirmed by at least one repeat assessment. [a]One participant with circumpapillary tumor that did not meet phase 3 criteria is not included. [b]Tumor thickness growth rates/slopes estimated using Mixed Models for Repeat Measures (MMRM); random intercept and slope model for Historical and Study periods.
LBD, largest basal diameter. ClinicalTrials.gov Identifier, NCT04417530: AU-011-202.
August 3, 2023, data on file Aura Biosciences.

Visual Acuity was Preserved in 90% of Participants Receiving a Bel-sar Therapeutic Regimen Based on Phase 2 Interim Data

- 80% (8/10) of these trial participants were at high risk of vision loss with tumors < 3 mm to the fovea or optic nerve

Median change in BCVA in Phase 3-eligible participants with therapeutic regimen (n=10)[a]



>90% of participants completed 12 months

[a]One participant with circumpapillary tumor that did not meet phase 3 criteria is not included. [b]Vision acuity loss defined as ≥15 letters decrease from baseline in ETDRS BCVA letter score.
BCVA, best-corrected visual acuity; **ETDRS,** Early Treatment Diabetic Retinopathy Study.
ClinicalTrials.gov Identifier, NCT04417530: AU-011-202.
August 3, 2023, data on file Aura Biosciences.

Phase 2 Interim Safety Data Supports Potential to be First Line Treatment in Primary Uveal Melanoma

Ongoing Phase 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%++

* Certain data in this presentation are based on a cross-trial comparisons and are not based on any head-to-head clinical trials. Cross-trial comparisons are inherently limited and may suggest misleading similarities or differences. Results of head-to-head comparisons may differ significantly from those set forth herein.
+Related to bel-sar or laser
**73% (16/22) of patients in Phase 2 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
AEs – Adverse Events; SAEs – Serious Adverse Events; SC - Suprachoroidal