

Exhibit 99.2

August 2025



Innovating the future of cancer care to cure
patients and preserve organ function



aura

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 nonclinical, 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 efficiently develop our existing product candidates and discover new product candidates; 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; statements regarding our beliefs and expectations for the high unmet medical need for an effective local treatment in ocular and urologic oncology to preserve organ function; 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 first half of 2027; 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.

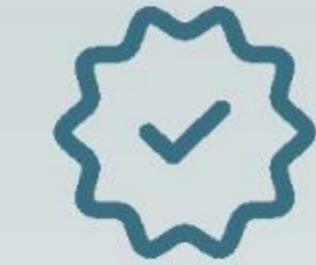
Well positioned for continued clinical program execution



Novel class of drugs: virus-like drug conjugates

VDCs have the potential to transform early cancer treatment

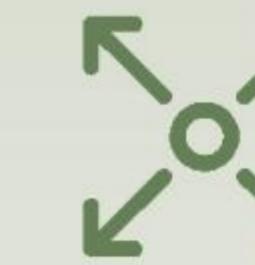
Novel MoA: direct tumor cell killing and immune cell activation



Positive clinical data in multiple indications

Positive phase 2 data in early choroidal melanoma with phase 3 ongoing under FDA SPA agreement

Multiple clinical complete responses with single low dose in phase 1 trial in NMIBC



Large market opportunity in areas of unmet need

Ocular oncology
~66,000 patients/yr (US/EU)¹⁻⁷

Urologic oncology
~500,000 patients/yr (globally)⁸



Key upcoming milestones

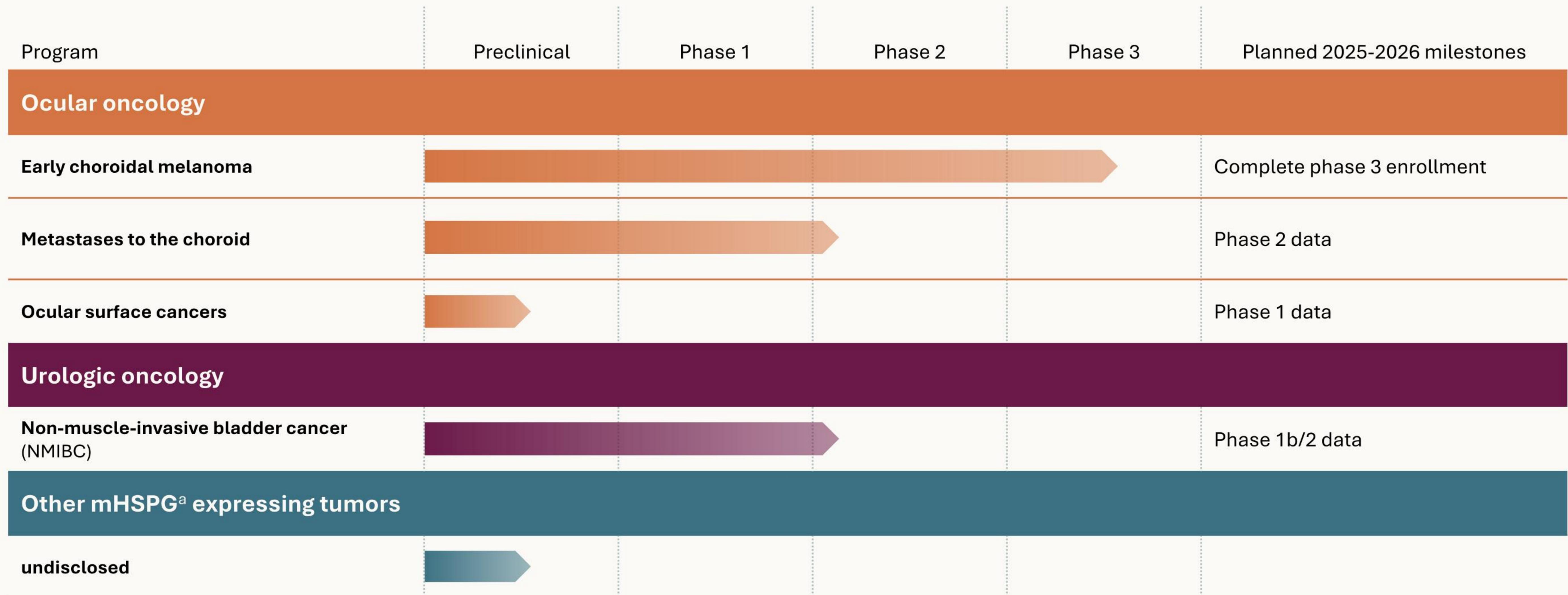
Complete enrollment in the phase 3 trial in early choroidal melanoma and phase 1b/2 trial in NMIBC

Current cash expected to fund operations into 1H 2027

1. Yu G-P et al. *Am J Ophthalmol.* 2003;135(6):800-6. 2. Triay E et al. *Br J Ophthalmol.* 2009;93(11):1524-8. 3. Newton R et al. *Lancet.* 1996;347(9013):1450-1. 4. Dalvin LA. *Br J Ophthalmol.* 2018;102(12):1728-1734. 5. Sun EC et al. *Cancer Epidemiol Biomarkers Prev.* 1997;6(2):73-7. 6. Epidemiology analysis for choroidal melanoma and choroidal metastasis by ClearView Healthcare Partners and Putnam. 7. American Cancer Society. Key statistics for retinoblastoma. Available at: <https://www.cancer.org/cancer/types/retinoblastoma/about/key-statistics.html>. Accessed Sept 5, 2024. 8. Bladder cancer. Putnam & Assoc. Epidemiology Analysis.

Early choroidal melanoma, small choroidal melanoma or indeterminate lesions; FDA, United States Food and Drug Administration; SPA, Special Protocol Assessment; VDC, Virus-like drug conjugate, MoA, Mechanism of action; NMIBC, Non-muscle-invasive bladder cancer

Clinical pipeline across multiple solid tumor indications



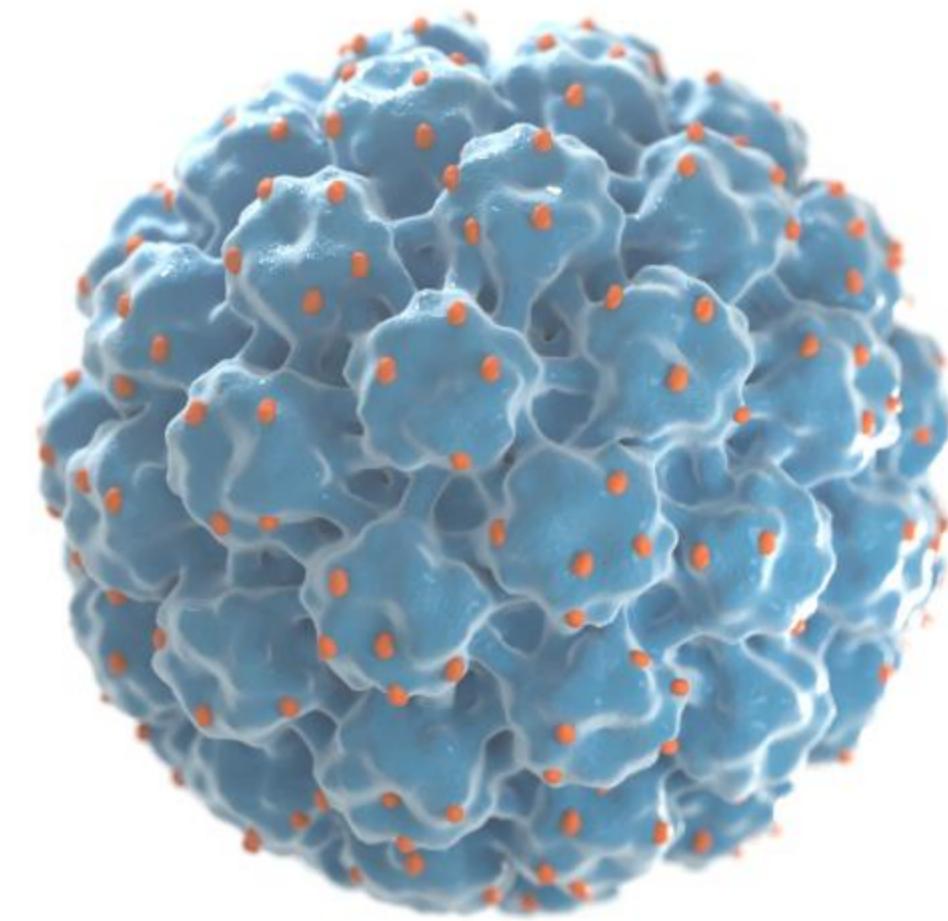
a. Virus-like drug conjugates (VDCs) bind to a subset of modified tumor associated glycosaminoglycans (GAGs) that are part of the heparan sulphate chain of heparan sulfate proteoglycans (HSPGs).¹

1. Kines RC, and Schiller JT. *Viruses*. 2022;14(8):1656. mHSPG, modified heparan sulphate proteoglycan.

Virus-like drug conjugates have the potential to transform early cancer treatment

Unique tumor selectivity

Targets a key receptor molecule expressed in the early stages of malignant tumor transformation



Tumor and mutation-agnostic

>100 cell lines

>15 animal tumor models

Dual MoA

Targeted cytotoxicity and immune activation; potential to generate lasting anti-tumor T-cell memory

High potency

~200 cytotoxic molecules per VLP; demonstrated picomolar efficacy in multiple animal tumor models

Positive clinical data in multiple early-stage local cancers

- **Choroidal melanoma:** Positive phase 2 end of study data; phase 3 ongoing
- **NMIBC:** Positive phase 1 data; phase 1b/2 ongoing

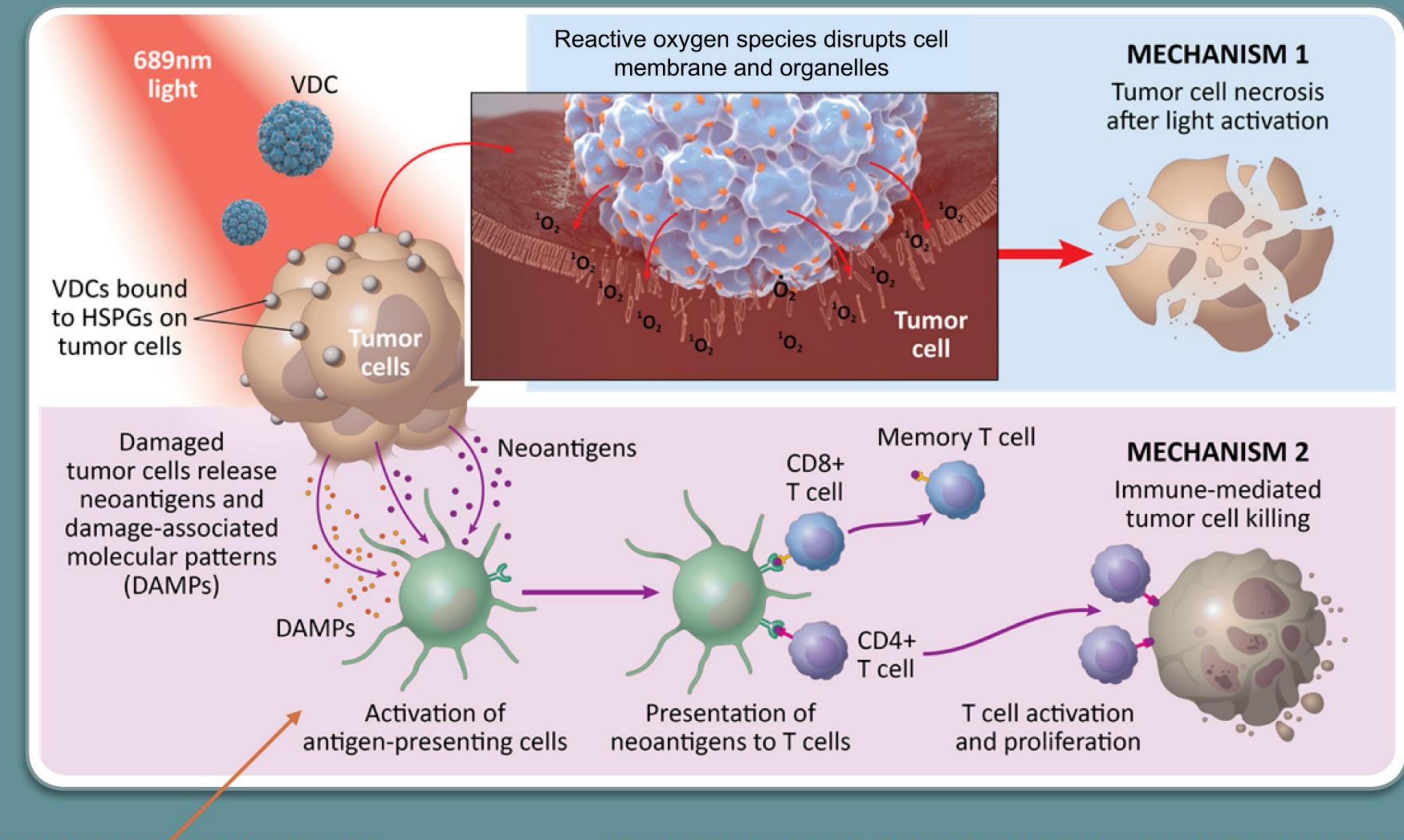
Favorable safety profile

No treatment-related SAEs and no DLTs reported in phase 2 choroidal melanoma trial or phase 1 data readout in NMIBC trial

AU-011 has 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

VLPs bind to macrophages, B cells, dendritic cells and neutrophils and are capable of stimulating antigen-presenting cells through TLR-4 engagement and NF κ -B production



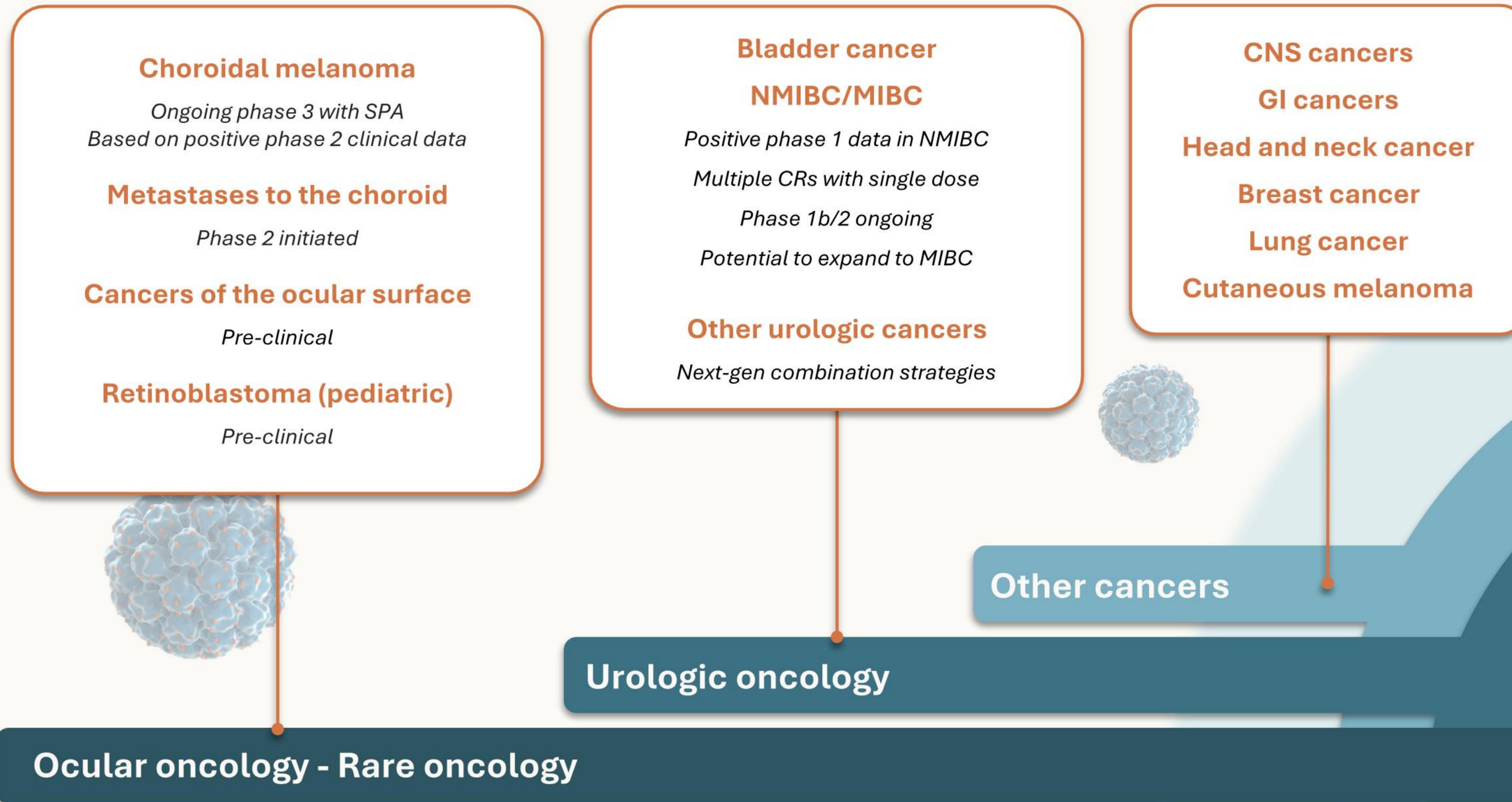
Release of **DAMPs** induces anti-tumor immunity

AU-011 treatment is designed to be cytopathic to resident suppressor cells, reducing the immune-suppressive microenvironment and contributing to anti-tumor immunity

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.

Bel-sar's unique platform technology is potentially applicable across multiple cancers



Bel-sar, belzupac sarotalocan; **CR**, clinical complete response; **CNS**, central nervous system; **GI**, gastrointestinal; **MIBC**, muscle-invasive bladder cancer. The effectiveness and safety of bel-sar have not been established or clinically evaluated in tumors outside the ocular or bladder setting, and bel-sar is not approved for use in any jurisdiction.

Ocular Oncology

Bel-sar target indications:

Early choroidal melanoma | Metastases to the choroid | Ocular surface cancers

Bel-sar opportunities in ocular oncology represent a multi- billion-dollar addressable market

- With only ~100 ocular oncologists in the US/EU, a global launch may be accomplished with a small (<20) field-based team

~66,000 patients/year

Ocular oncology franchise total addressable market (US/EU)

~35,000/yr^{a,1-5}

Ocular surface cancers

~11,000/yr⁶

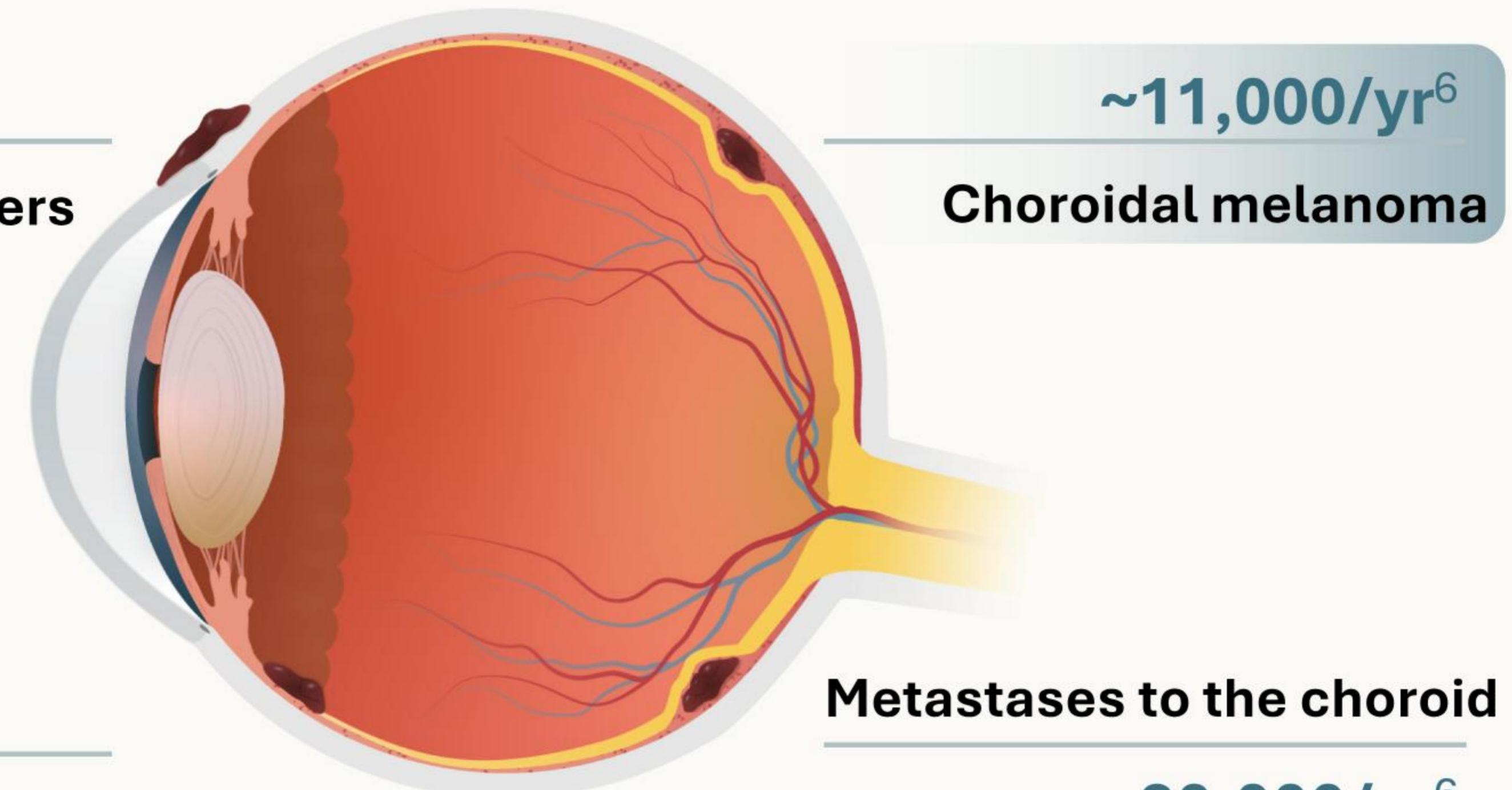
Choroidal melanoma

Retinoblastoma

~500/yr⁷

Metastases to the choroid

~20,000/yr⁶



^aIncludes conjunctival melanoma, primary acquired melanosis, squamous cell carcinoma and ocular surface squamous neoplasia.¹⁻⁵

1. Yu G-P et al. *Am J Ophthalmol.* 2003;135(6):800-6. 2. Triay E et al. *Br J Ophthalmol.* 2009;93(11):1524-8. 3. Newton R et al. *Lancet.* 1996;347(9013):1450-1. 4. Dalvin LA. *Br J Ophthalmol.* 2018;102(12):1728-1734. 5. Sun EC et al. *Cancer Epidemiol Biomarkers Prev.* 1997;6(2):73-7. 6. Epidemiology analysis for choroidal melanoma and choroidal metastasis by ClearView Healthcare Partners and Putnam. 7. American Cancer Society. Key statistics for retinoblastoma. Available at: <https://www.cancer.org/cancer/types/retinoblastoma/about/key-statistics.html>. Accessed Sept 5, 2024. Bel-sar (AU-011) is an investigational product candidate

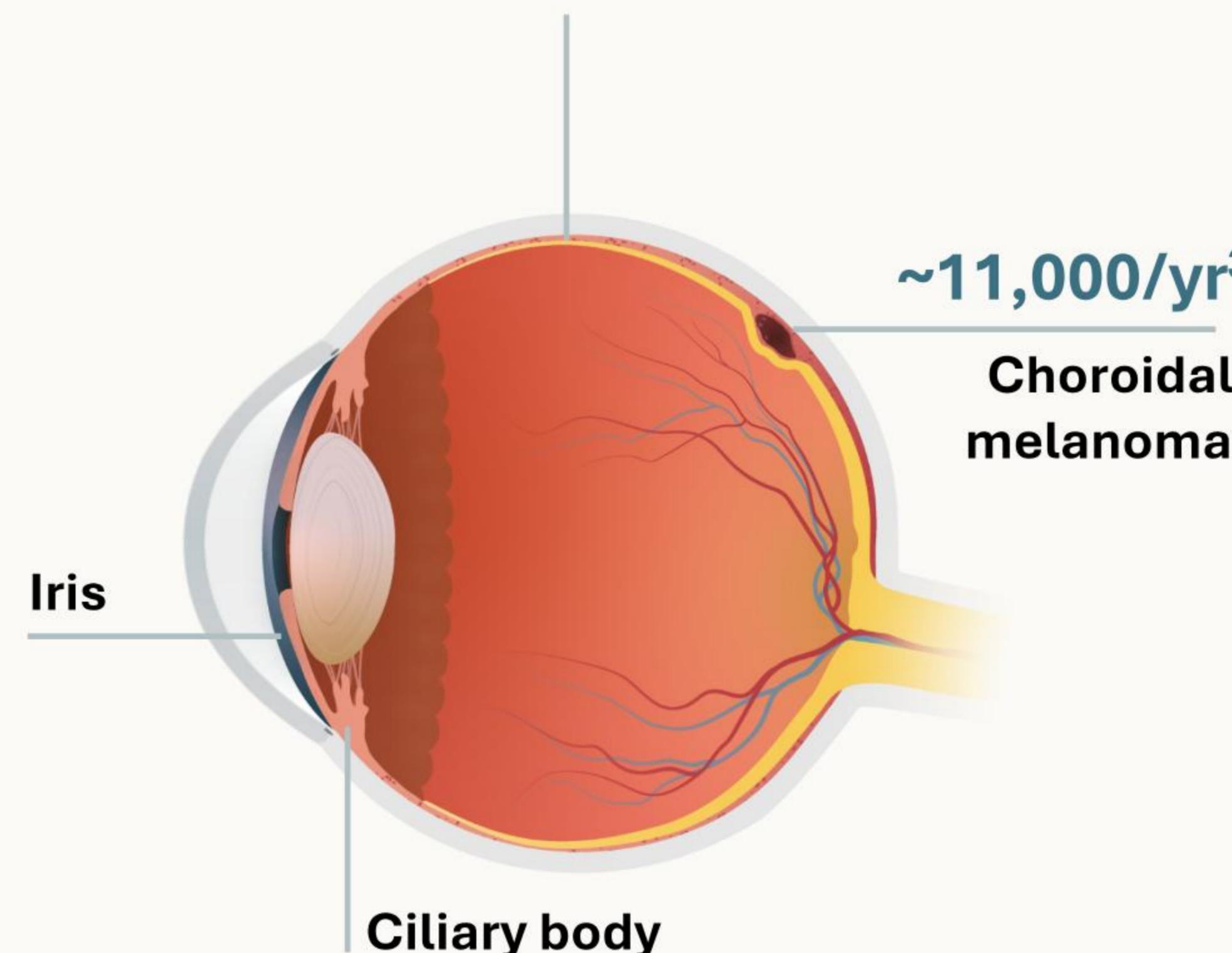
The effectiveness and safety of bel-sar have not been established, and bel-sar is not approved for use in any jurisdiction.

Bel-sar is in phase 3 for early choroidal melanoma, the most common primary intraocular cancer in adults

- Early choroidal melanoma is a high unmet medical need
- With no currently approved vision-preserving therapies, the current standard-of-care is radiotherapy – treatment that leads to legal blindness^{4,5}

Choroid is 90%

of the uvea¹



Uvea: Choroid, ciliary body and iris

Most common primary intraocular cancer in adults^{2,3}

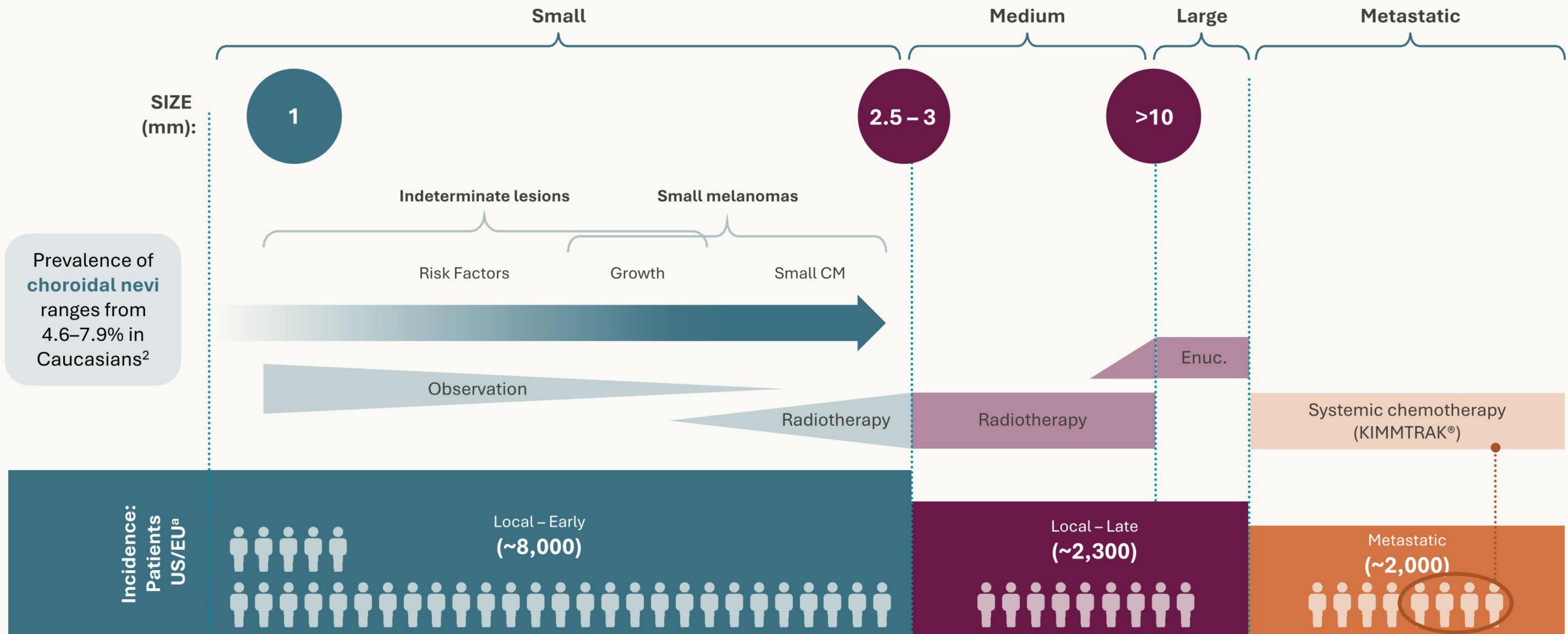
~80% of patients diagnosed with **early-stage disease**³

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

Bel-sar has the potential to provide a treatment option that preserves vision

1. Heiting, G. Iris/uvea of the eye. Available at: <https://www.allaboutvision.com/en-gb/resources/uvea-iris-choroid/>. Accessed Oct. 3, 2023. 2. Kaliki S and Shields CL. Eye (Lond). 2017;31(2):241-257. 3. Epidemiology analysis for choroidal melanoma and choroidal metastasis by ClearView Healthcare Partners and Putnam. 4. 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. 5.. 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.

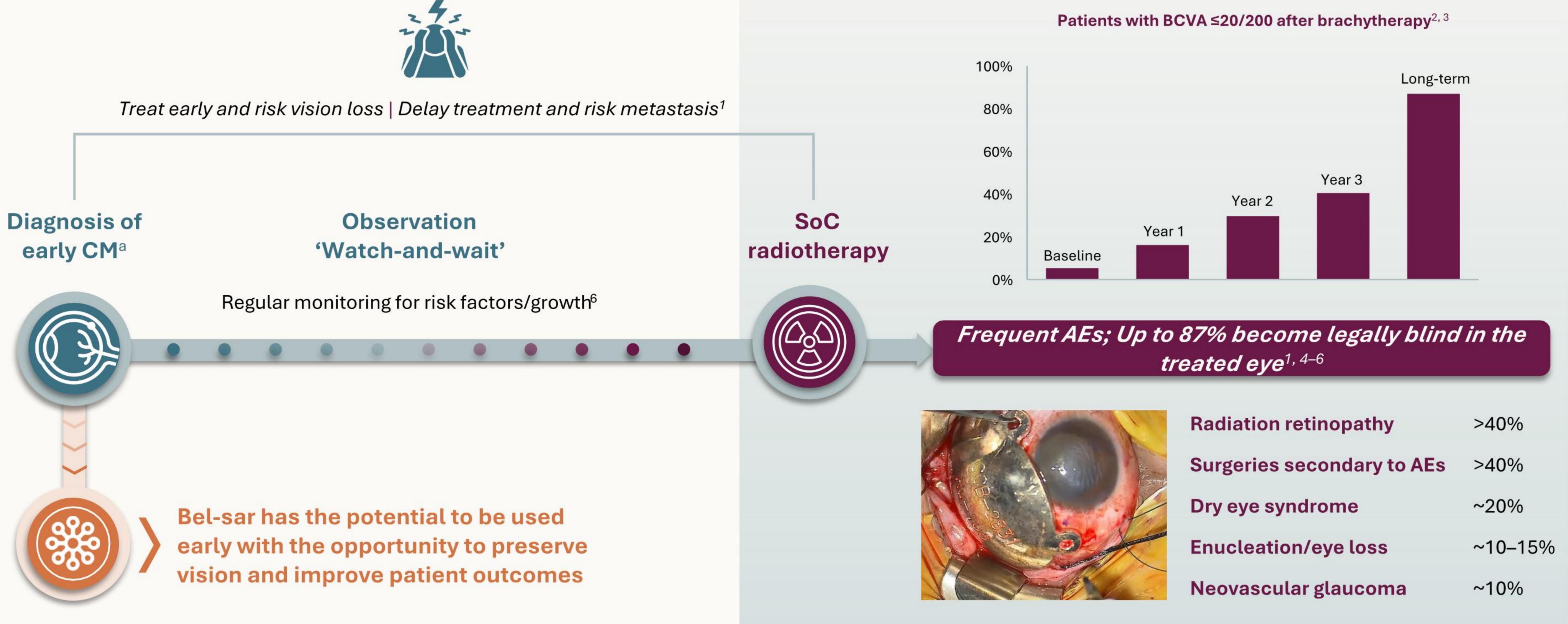
Current treatment paradigm for choroidal melanoma^{1–3}



^aEach figure represents ~250 persons.

1. Shields CL et al. Choroidal and ciliary body melanoma. Available at: https://eyewiki.aao.org/Choroidal_and_Ciliary_Body_Melanoma Accessed September 9, 2024. 2. Singh AD, et al. Ophthalmology. 2005;112(10):1784–89. 3. Epidemiology analysis for choroidal melanoma and choroidal metastasis by ClearView Healthcare Partners and Putnam. CM, choroidal melanoma; Enuc., enucleation.

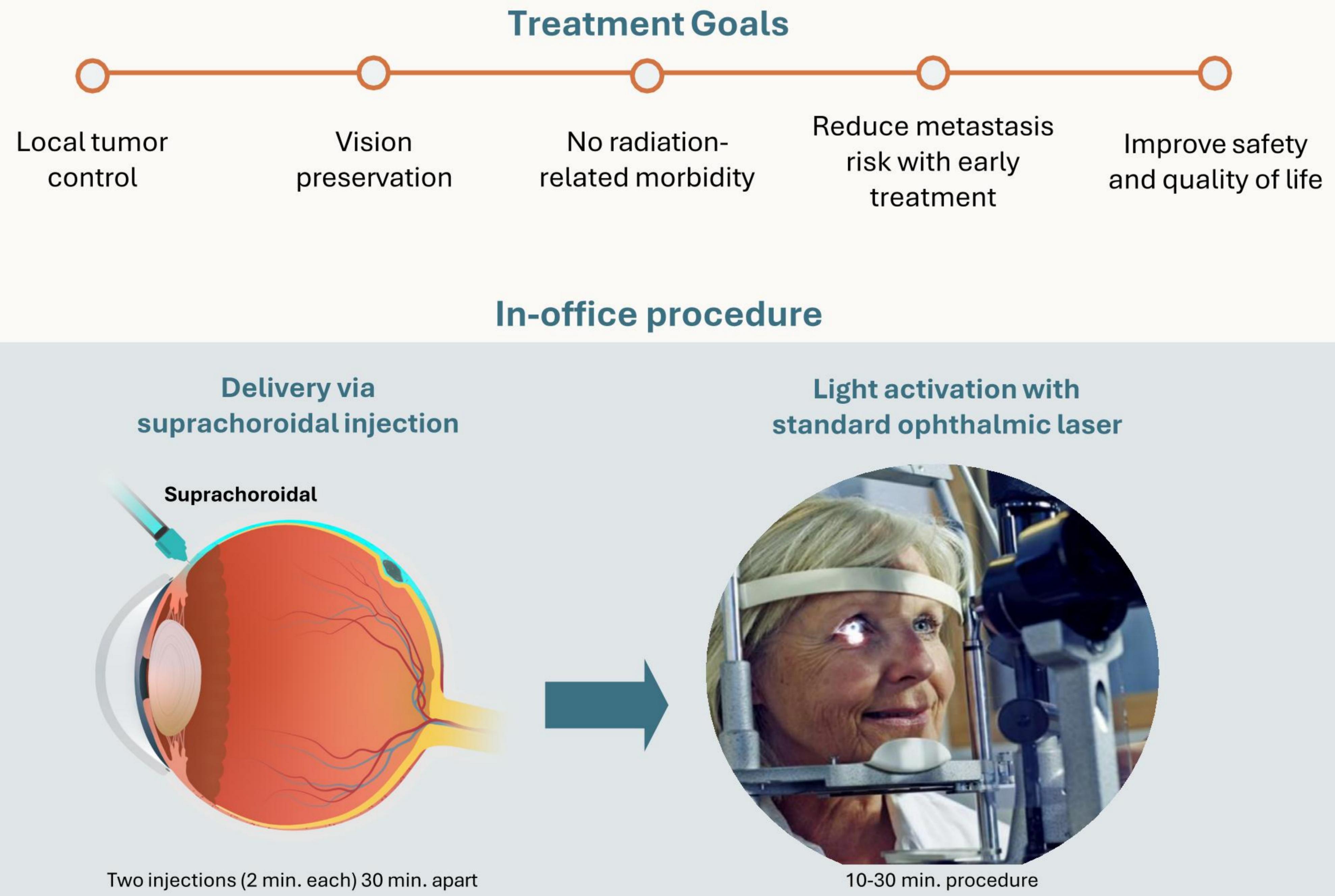
Current SoC: Associated with high morbidity and blindness



^a75-80% of patients diagnosed with early-stage disease⁷. 2/3 of patients present with symptoms, 1/3 of patients diagnosed during routine exam.⁸

1. Kaliki S, Shields CL. Eye. 2017;31(2):241–257. 2. Jarczak J et al. Medicina (Kaunas). 2023;59(6):1131. 3. Tsui I, et al. Open Ophthalmol J. 2015;9:131–5. 4. Shields CL, et al. Arch Ophthalmol. 2000;118(9):1219–1228. 5. Peddada KV, et al. J Contemp Brachytherapy. 2019;11(4):392–397. 6. Shields CL et al. Curr Opin Ophthalmol. 2019;30(3):206–214. 7. Epidemiology analysis for choroidal melanoma and choroidal metastasis by ClearView Healthcare Partners and Putnam. 8. Milam RW, Daniels AB. Uveal melanoma. In Riker AI, ed. Melanoma: A Modern Multidisciplinary Approach. Cham, Switzerland: Springer International Publishing, 2018, p. 273–312. AE, adverse event; BCVA, best-corrected visual acuity; SoC, standard-of-care.

Bel-sar has the potential to be the first approved vision-preserving therapy in early choroidal melanoma

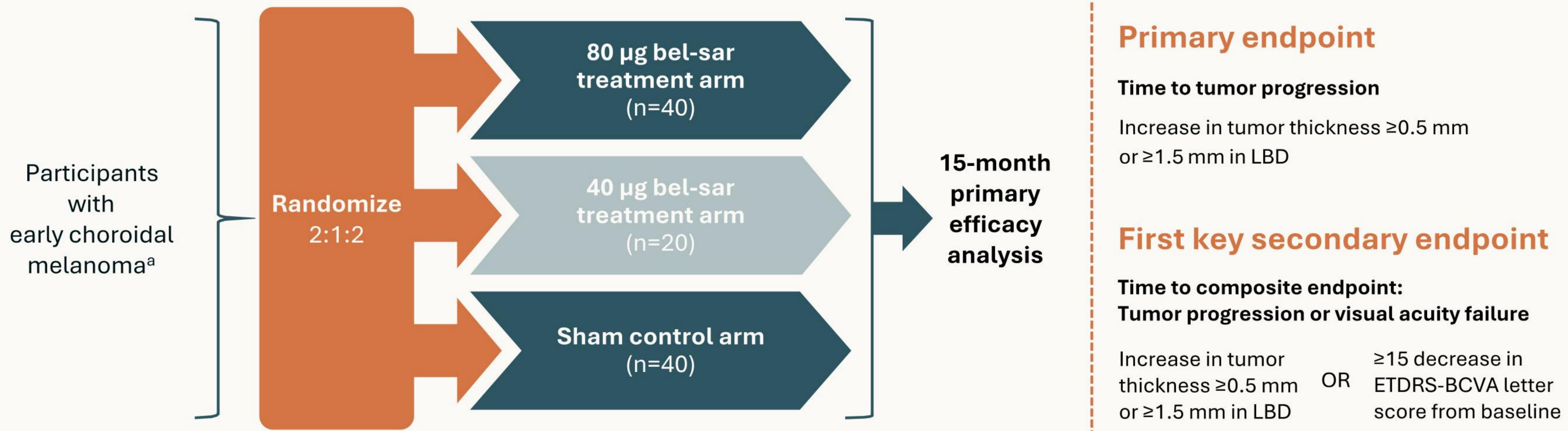


Bel-sar (AU-011) is an investigational product candidate. The effectiveness and safety of bel-sar have not been established, and bel-sar is not approved for use in any jurisdiction.

Bel-sar for early choroidal melanoma^a: Global phase 3 CoMpass trial now enrolling

Target enrollment ~100 participants globally

Sites in North America, Europe, Middle East and Asia-Pacific Regions



Received **fast track** and **orphan drug designations**

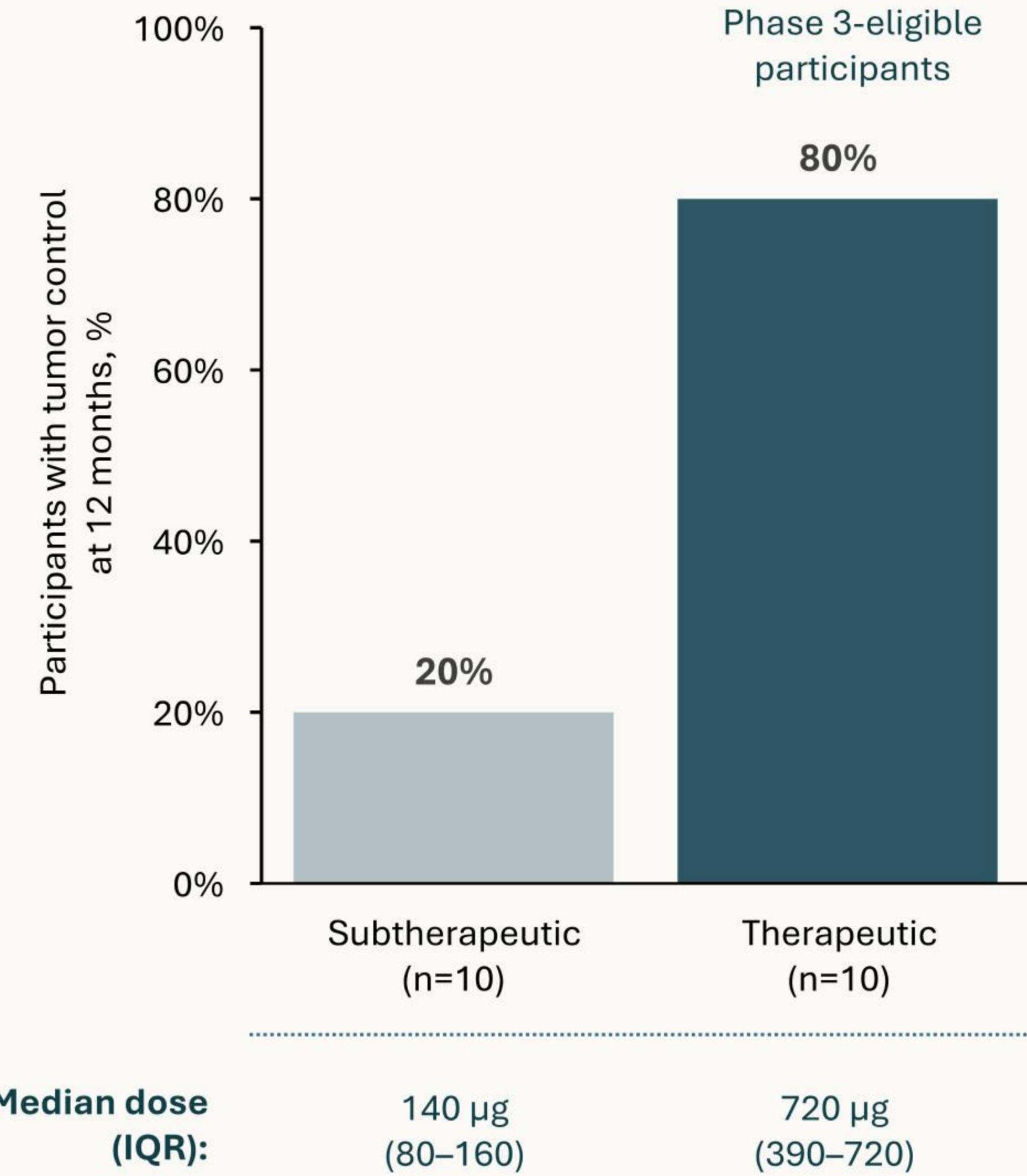
An **SPA agreement** indicates concurrence by the FDA that the design of the trial can adequately support a regulatory submission

^aEarly choroidal melanoma, small choroidal melanoma or indeterminate lesions.
ETDRS, Early Treatment Diabetic Retinopathy Study; LBD, largest basal diameter.
ClinicalTrials.gov Identifier: NCT06007690; AU-011-301.

High local complete response rate at 12 months follow-up

80% tumor control rate^a at 12 months among the 10 phase 3-eligible patients in the 3-cycle cohorts

Phase 2 end of study data in early choroidal melanoma: High tumor control rates with therapeutic regimen in phase 3-eligible patients with active growth



^aLocal complete response, or CR, in early-stage choroidal melanoma is described as tumor control and complete arrest of tumor growth by ocular oncologists.

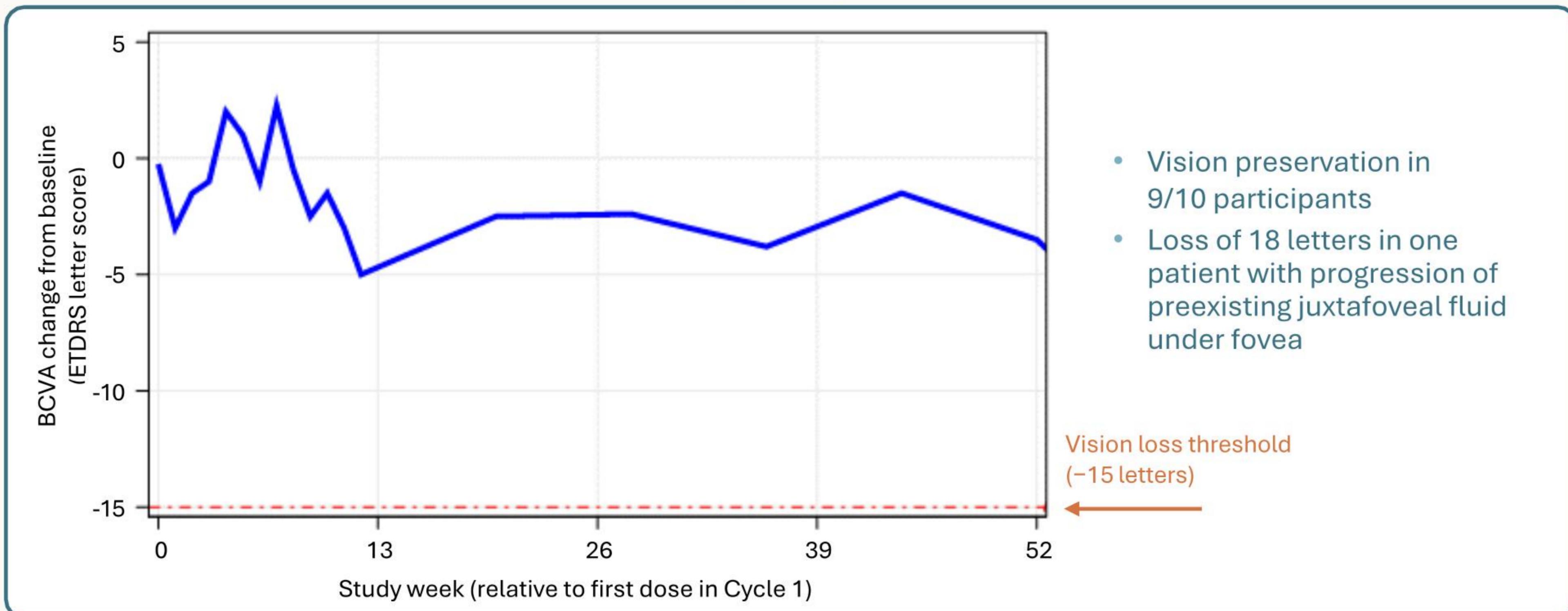
^bOne participant with circumpapillary tumor that did not meet phase 3 criteria is not included.

IQR, interquartile range. ClinicalTrials.gov Identifier, NCT04417530: AU-011-202. Data on file, Aura Biosciences.

Visual acuity was preserved in 90% of phase 3-eligible patients receiving a bel-sar therapeutic regimen

- 80% were at high risk of vision loss with tumors < 3 mm to the fovea or optic nerve
- 90% visual acuity preservation supports the potential for bel-sar to be a front-line therapy for early-stage disease

Phase 2 end of study data in early choroidal melanoma: Median change in BCVA in phase 3-eligible participants with therapeutic regimen (N=10)^a



- Vision preservation in 9/10 participants
- Loss of 18 letters in one patient with progression of preexisting juxtafoveal fluid under fovea

Populations	Patients (n)	Vision failures ^b (n)	Vision preservation rate (%)
All dose cohorts			
All treated patients	22	1	95%
Subtherapeutic			
≤2 cycles	10	0	100%
Therapeutic			
3 cycles and phase 3-eligible ^a	10	1	90%

^aOne participant with circumpapillary tumor that did not meet phase 3 criteria is not included. ^bVision acuity loss defined as ≥15 letters decrease from baseline in ETDRS BCVA letter score.

ClinicalTrials.gov Identifier, NCT04417530: AU-011-202. Data on file, Aura Biosciences.

Phase 2 end of study data represented using phase 3 endpoints

Kaplan-Meier analysis simulation of time-to-event

Time to tumor progression

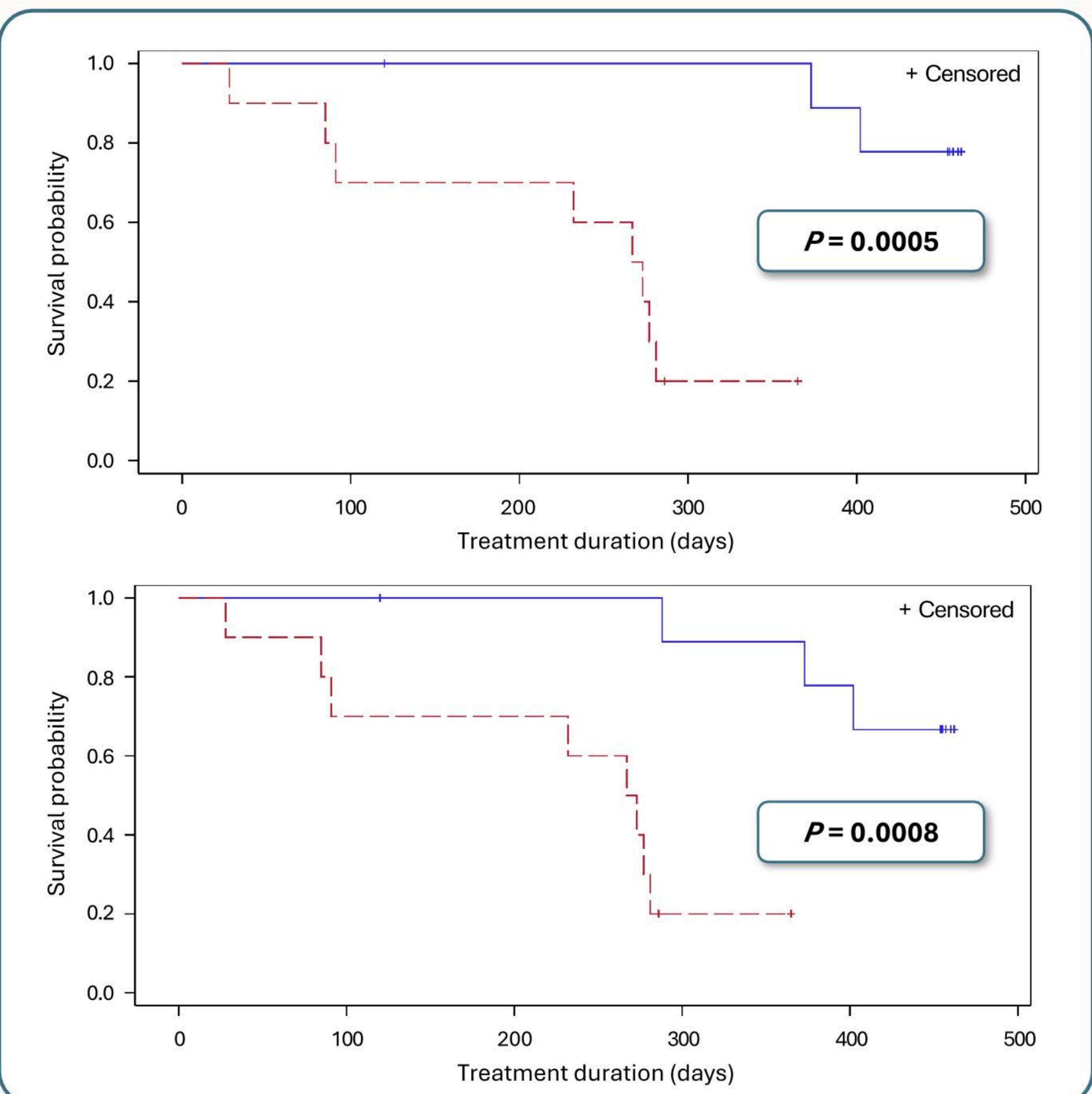
Change from baseline in thickness
≥0.5 mm; or in LBD ≥1.5 mm
confirmed by at least one
repeat assessment

Therapeutic
n=10

Subtherapeutic
n=10

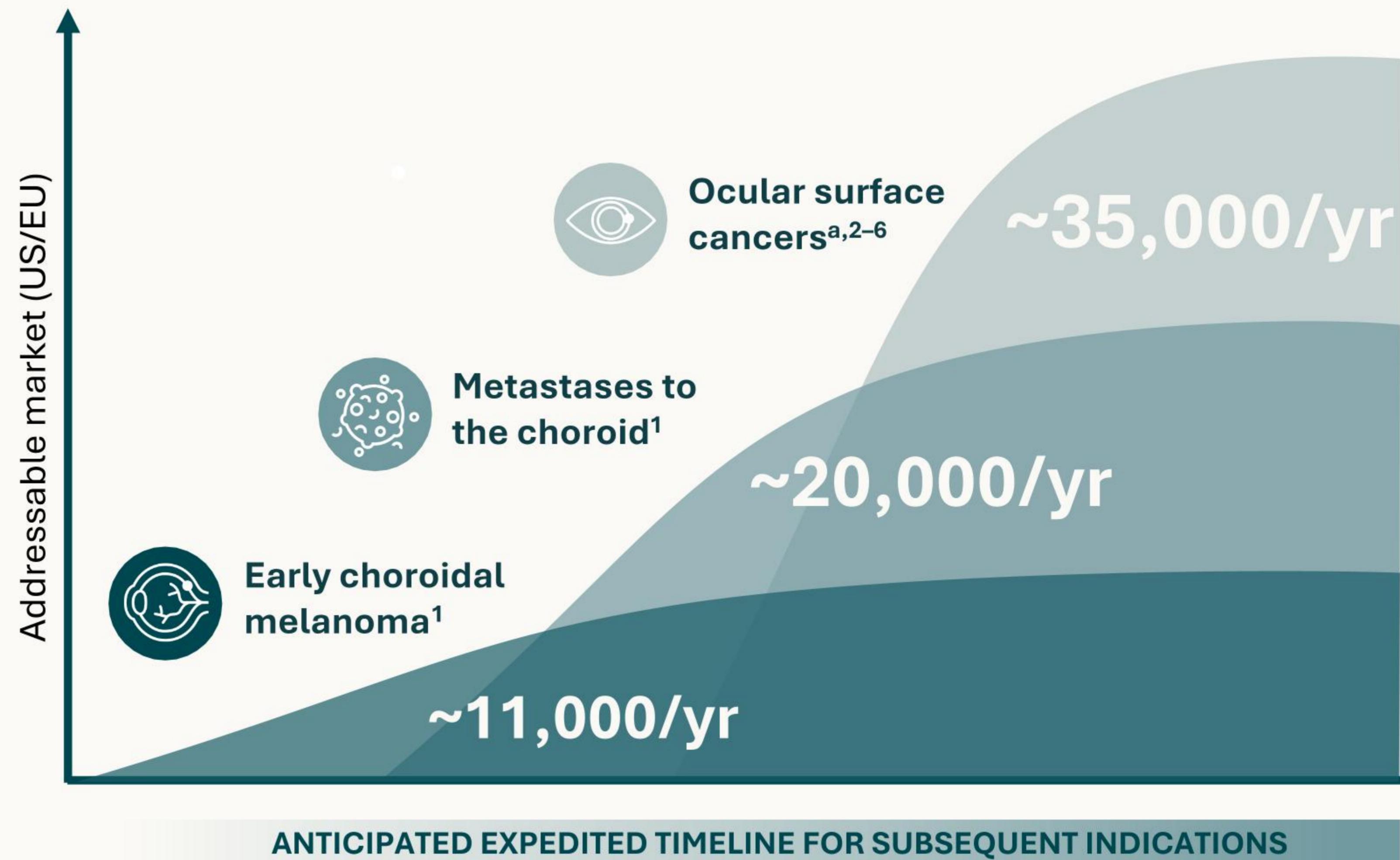
Time to composite endpoint

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.
ETDRS, Early Treatment Diabetic Retinopathy Study. ClinicalTrials.gov Identifiers: NCT04417530; AU-011-202 (phase 2); NCT06007690; AU-011-301 (phase 3). Data on file, Aura Biosciences.

Bel-sar has a significant commercial opportunity in ocular oncology



Bel-sar's potential value drivers

- Highly favorable competitive landscape
- Regulatory and manufacturing synergies
- Focused call point (~100 ocular oncologists in US/EU) with potential expansion to retina specialists
- Same centers
- Small (<20) field-based team
- Buy-and-bill reimbursement

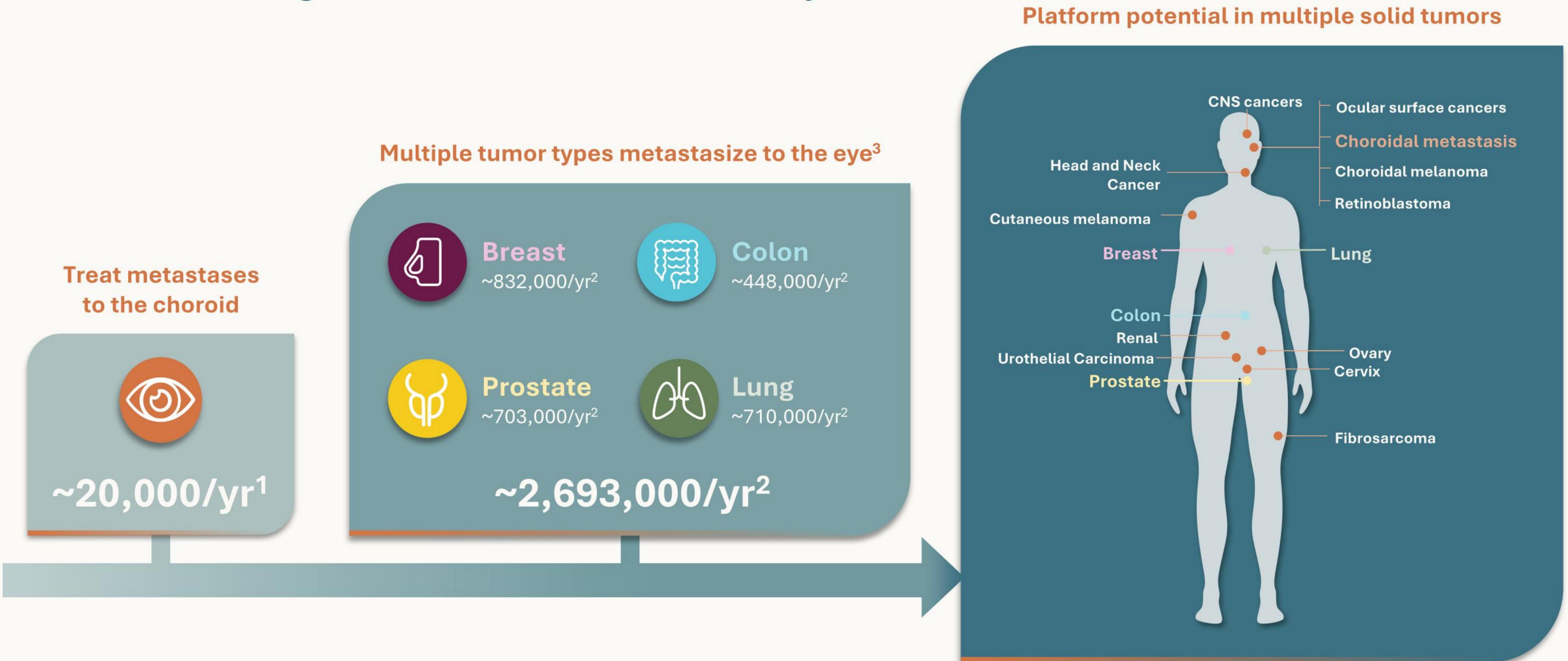
Bel-sar has the potential to transform the ocular oncology field as a **vision-preserving therapy** that **alleviates patient burden** and potentially **reduces local recurrence and risk of metastasis with early treatment**

^aIncludes conjunctival melanoma, primary acquired melanosis, squamous cell carcinoma and ocular surface squamous neoplasia.²⁻⁶

1. Epidemiology analysis for choroidal melanoma and choroidal metastasis by ClearView Healthcare Partners and Putnam. 2. Yu G-P et al. *Am J Ophthalmol.* 2003;135(6):800-6. 3. Triay E et al. *Br J Ophthalmol.* 2009;93(11):1524-8. 4. Newton R et al. *Lancet.* 1996;347(9013):1450-1. 5. Dalvin LA. *Br J Ophthalmol.* 2018;102(12):1728-1734. 6. Sun EC et al. *Cancer Epidemiol Biomarkers Prev.* 1997;6(2):73-7.

Metastases to the choroid:

Evaluating metastases from multiple tumor types may provide valuable insights into bel-sar's utility in non-ocular solid tumors



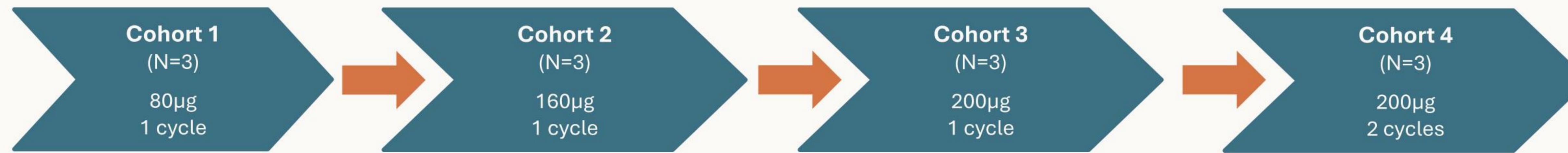
US/EU incidence.

1. Epidemiology analysis for choroidal melanoma and choroidal metastasis by ClearView Healthcare Partners and Putnam. 2. IARC Cancer Today. GLOBOCAN 2022 (version 1.1). Available at: [Cancer Today](#). Accessed May 6, 2025.

3. Mathis T et al. *Prog Ret Eye Res.* 2019;68:144-176. Bel-sar (AU-011) is an investigational product candidate. The effectiveness and safety of bel-sar have not been established or clinically evaluated in tumors outside the ocular or bladder setting, and bel-sar is not approved for use in any jurisdiction.

Metastases to the choroid: Study expanded to include patients with *any systemic carcinoma*

Study Design (n=12)^{a,b}



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
- **Any systemic carcinoma** (*previously breast or lung only*)
- No changes in concurrent systemic medications planned

- **Multiple sites activated**
- Primary endpoint at one-month post-treatment; possibility to see tumor shrinkage and vision preservation/improvement

^a3+3 Design. Each cohort to have a minimum of 3 and a maximum of 6 patients.

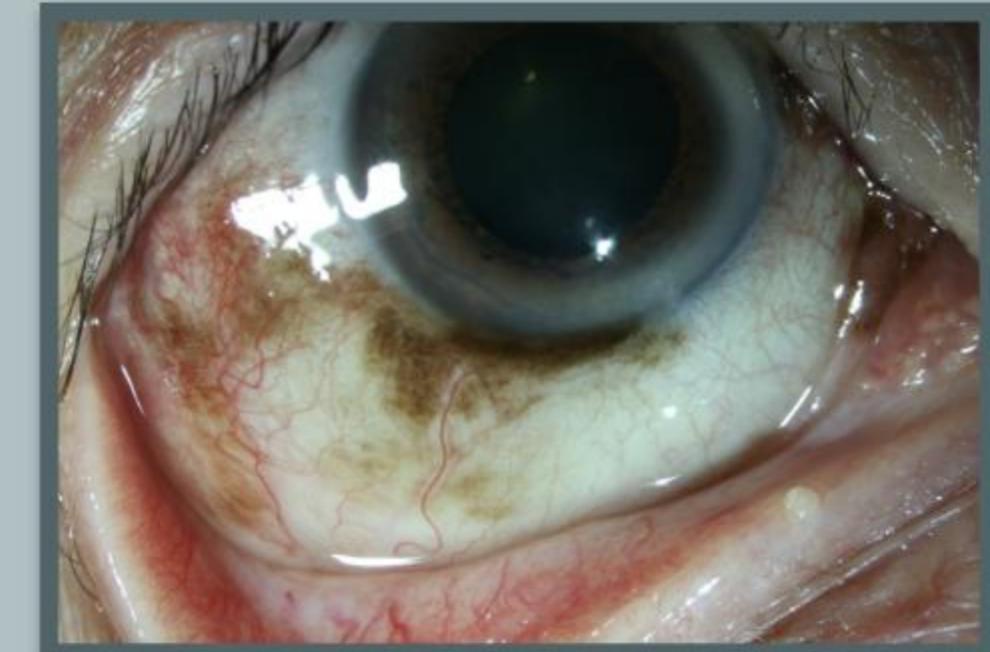
^bSimplified schema of study design.

Cancers of the Ocular Surface:

One of the largest ocular oncology indications, with high unmet need

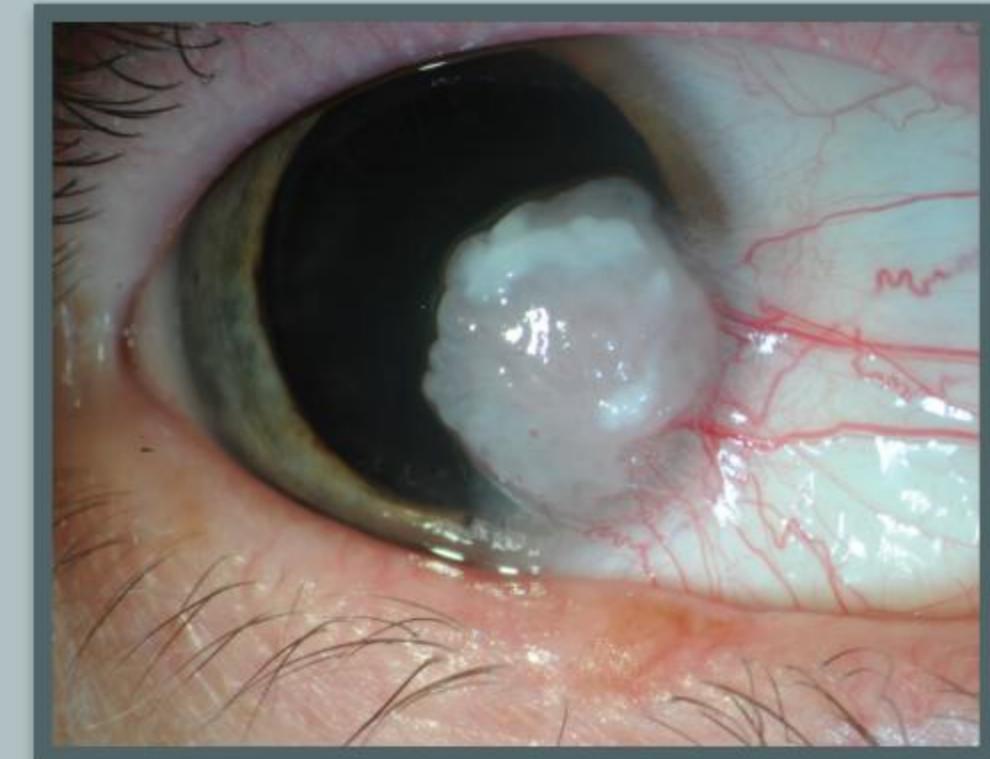
Cancer Types¹⁻⁵

- Conjunctival Melanoma & other Melanocytic Tumors (PAM): ~30,000
- Conjunctival Squamous Cell Carcinoma / OSSN: ~5,000



Treatment^{6,7}

- Surgery/Excision
- Neoadjuvant and/or adjuvant local chemotherapy
 - No drugs specifically approved for conjunctival tumors
- Exenteration (removal of eye and entire orbital contents)
- High recurrence rate

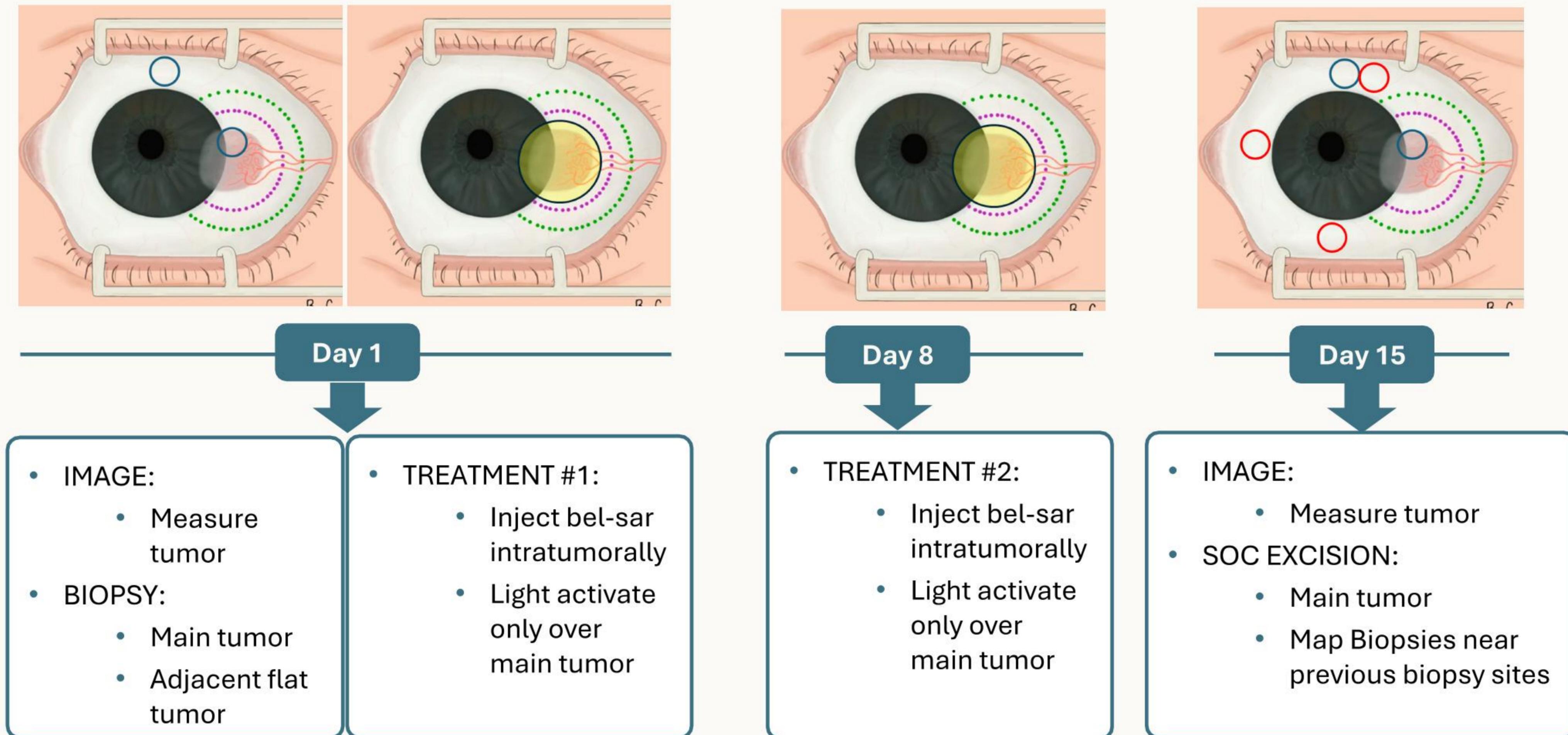
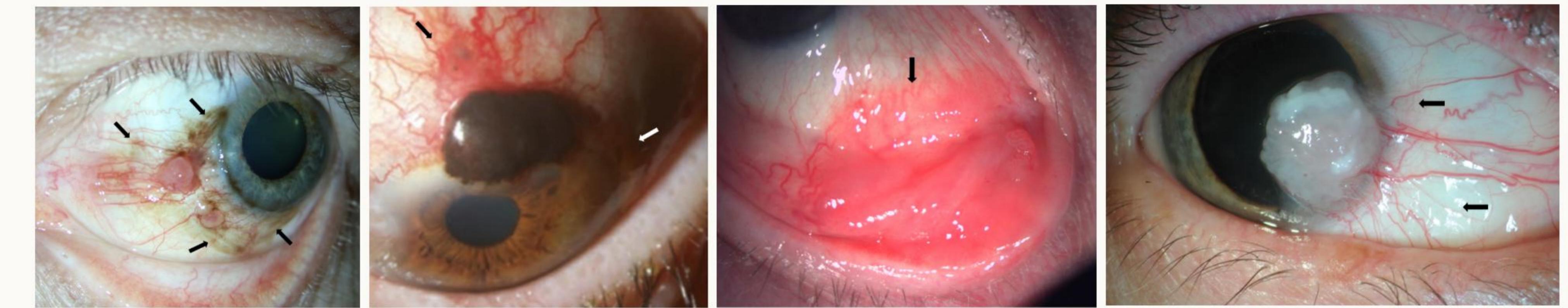


Mortality & Morbidity

- Mortality: ~25% (for conjunctival melanoma) with maximal treatment⁶
- Morbidity: ocular irritation/pain, dry eye, vision loss, loss of eye^{6,7}

Planned proof-of-concept phase 1 study of bel-sar for ocular surface tumors

- Assess safety, feasibility, histopathologic and immune response



Urologic Oncology

Bel-sar target indications:
Intermediate-risk NMIBC | High-risk NMIBC

Bladder cancer: High unmet medical need for function-preserving organ-sparing therapies

9th most common cancer worldwide¹

>600,000 cases/year globally¹

614,298 diagnosed in 2022¹
(>7% increase from 2020)^{1,2}

Ranked 13th for mortality¹

Significant patient burden; one of the highest lifetime treatment costs of all cancers

>\$6 billion
Annual cost of treatment in US⁵

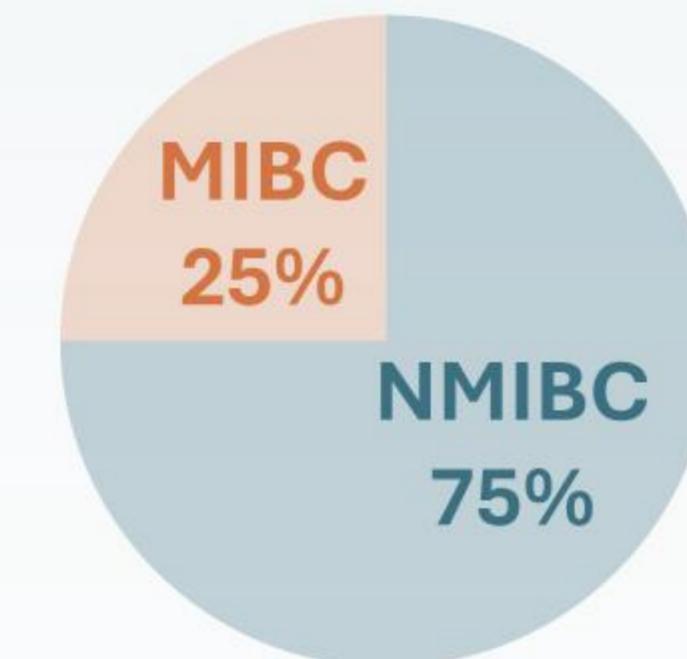
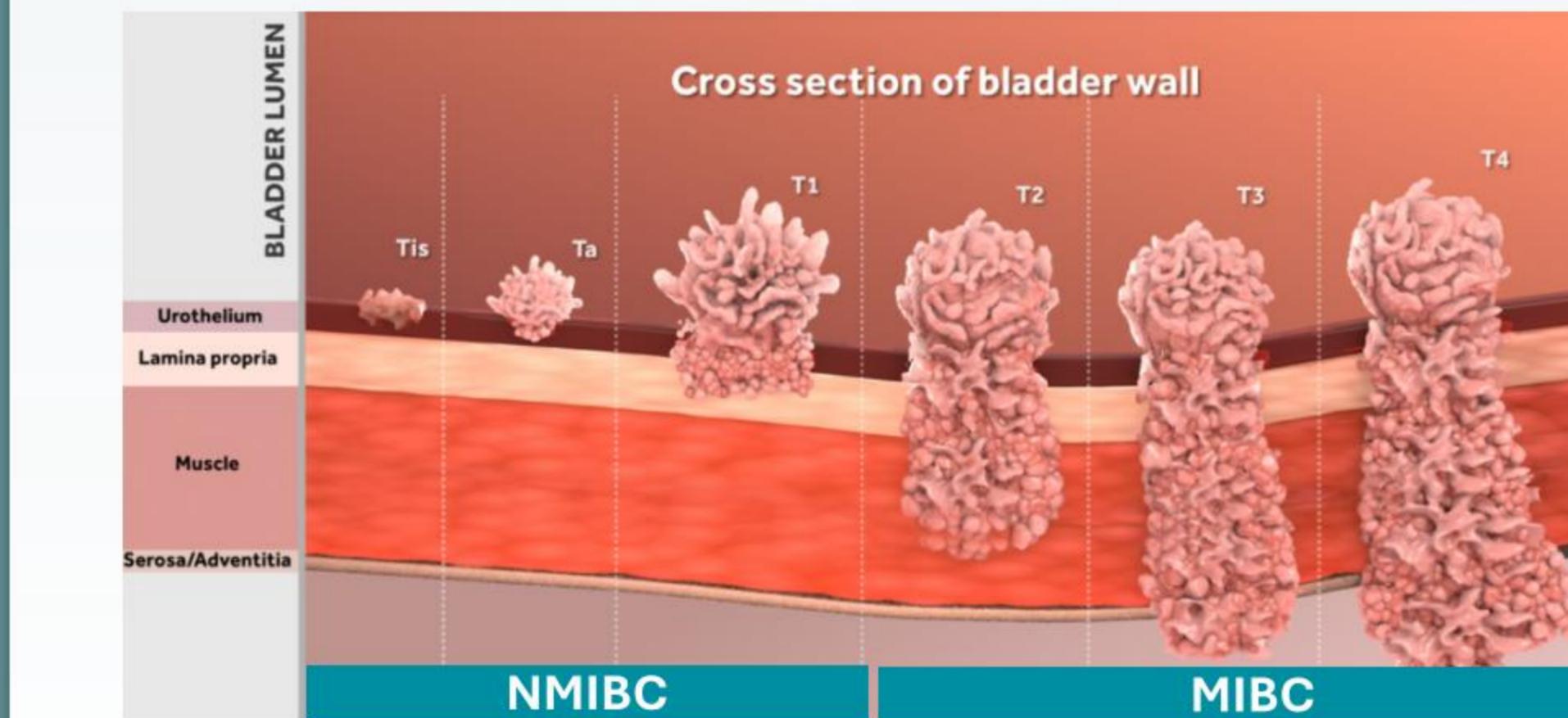
Conventional bladder cancer treatments are suboptimal⁴

- Short- and long-term side effects
- Considerable impact on QoL
- Inadequate efficacy
- Multiple TURBT surgeries
- Disease progression/metastasis
- Loss of bladder/cystectomy

84%

of patients do not complete a full course of BCG treatment⁶

Patients are receiving fewer courses of BCG due to global shortage⁷



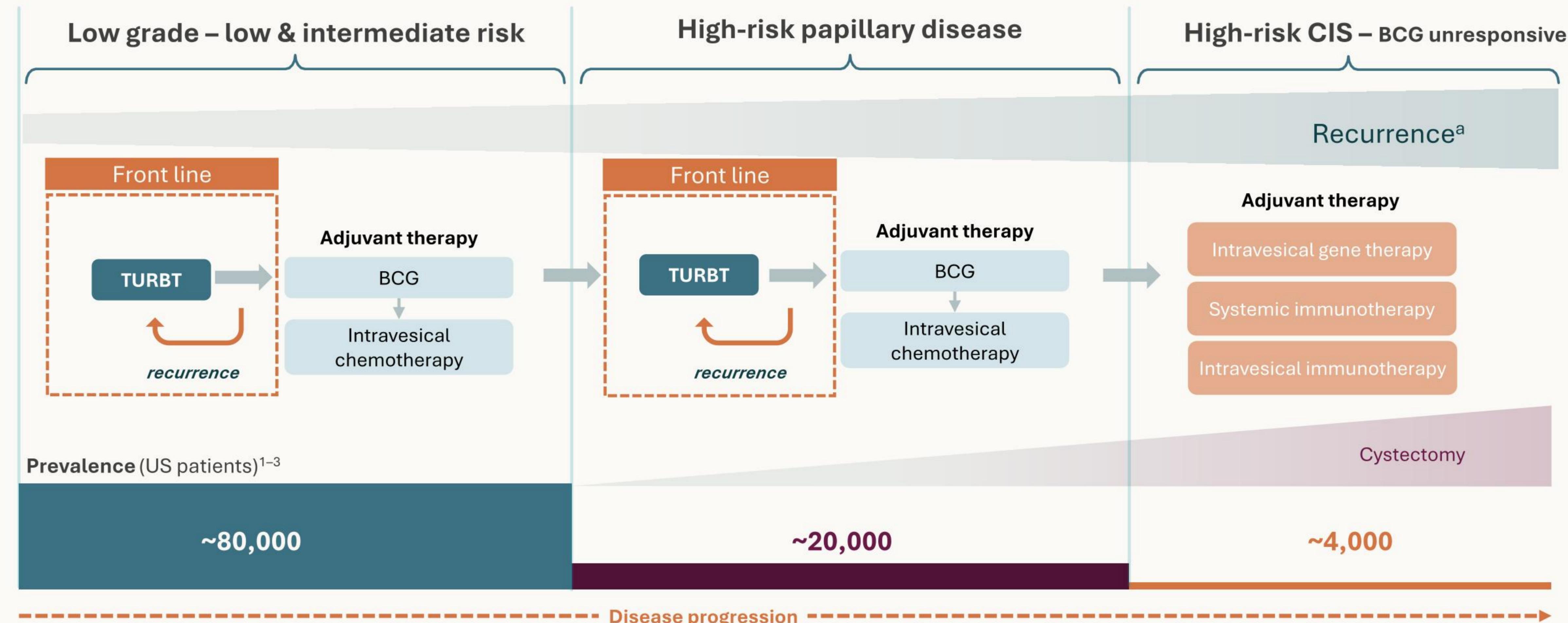
The majority of bladder cancer patients present with NMIBC³



~70-80% of patients with NMIBC develop recurrence after treatment⁸

1. GLOBOCAN 2022. Bladder. Available at: <https://gco.iarc.who.int/media/globocan/factsheets/cancers/30-bladder-fact-sheet.pdf>. [Accessed October 1, 2024]. 2. Sung H, et al. CA Cancer J Clin. 2021;71(3):209–49. 3. Burger M, et al. Eur Urol. 2013;63(2):234–41. 4. Flagg TW, et al. J Natl Compr Canc Netw. 2018;16(9):1041–53. 5. Clark O, et al. Pharmacoecon Open. 2024 Aug 18. doi: 10.1007/s41669-024-00512-8. [Online ahead of print]. 6. Lamm DL, et al. J Urol. 2000;163(4):1124–9. 7. Shore ND, et al. Urol Oncol. 39(10):642–63. 8. Shalata AT, et al. Cancers (Basel). 2022;14(20):5019. **BCG**, Bacillus Calmette-Guerin; **QoL**, quality of life; **TURBT**, transurethral resection of bladder tumor.

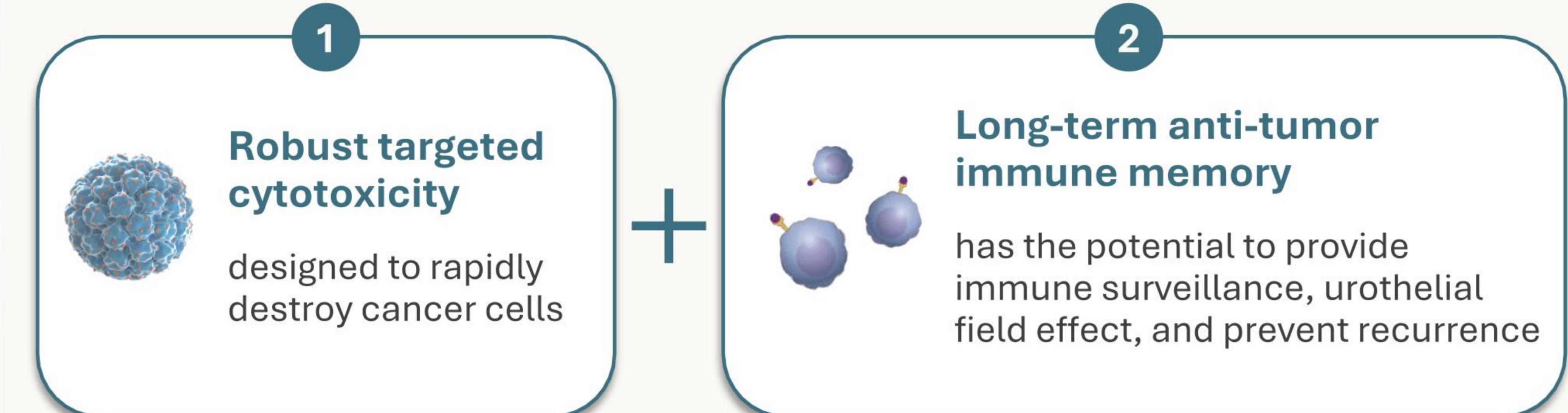
Current treatment paradigm based on upfront resection leads to recurrence



^a42–84% of low-grade IR patients develop recurrence.^{4,5} 1. Holzbeierlein JM et al. *J Urol.* 2024;212(1):3–10. 2. Holzbeierlein JM et al. *J Urol.* 2024 Apr;211(4):533–58. 3. Internal Aura epidemiology of market size; data on file. 4. Shalata AT, et al. *Cancers (Basel).* 2022;14(20):5019. 5. van Rhijn BWG, et al. *Eur Urol.* 2009;56(3):430–42. BCG, Bacillus Calmette-Guérin; CIS, carcinoma in situ.

Bel-sar has an innovative dual MoA

Bel-sar is designed to increase bladder preservation while reducing risk of recurrence and treatment burden



Immune ablation offers an effective front-line therapy, leveraging the immune system to fight cancer at an early stage

- + **Focal administration** treats the tumor, not the entire urothelium
- + **No need for general anesthesia** – administration is aligned with current urology office practice
- + **Procedure is brief (<15 min for both injection and activation) and familiar to urologists**, using standard cystoscopy needles and common technique for laser application

Virus-like drug conjugates (VDCs) have potential advantages over oncolytic viruses



Broader and more specific tropism for binding over normal tissue



No viral genes expressed to compete with tumor antigens for induction of CMI



Killing mechanism promotes induction of CMI to tumor antigens



Evolution of escape mutants less likely; unlike virus cell surface and uptake receptors, HSPG modifications appear to be drivers of oncogenesis

New formulation of bel-sar for use in bladder cancer

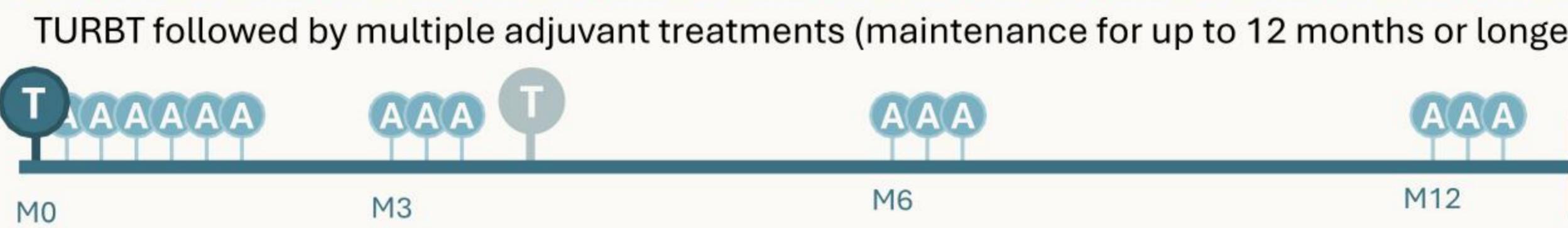
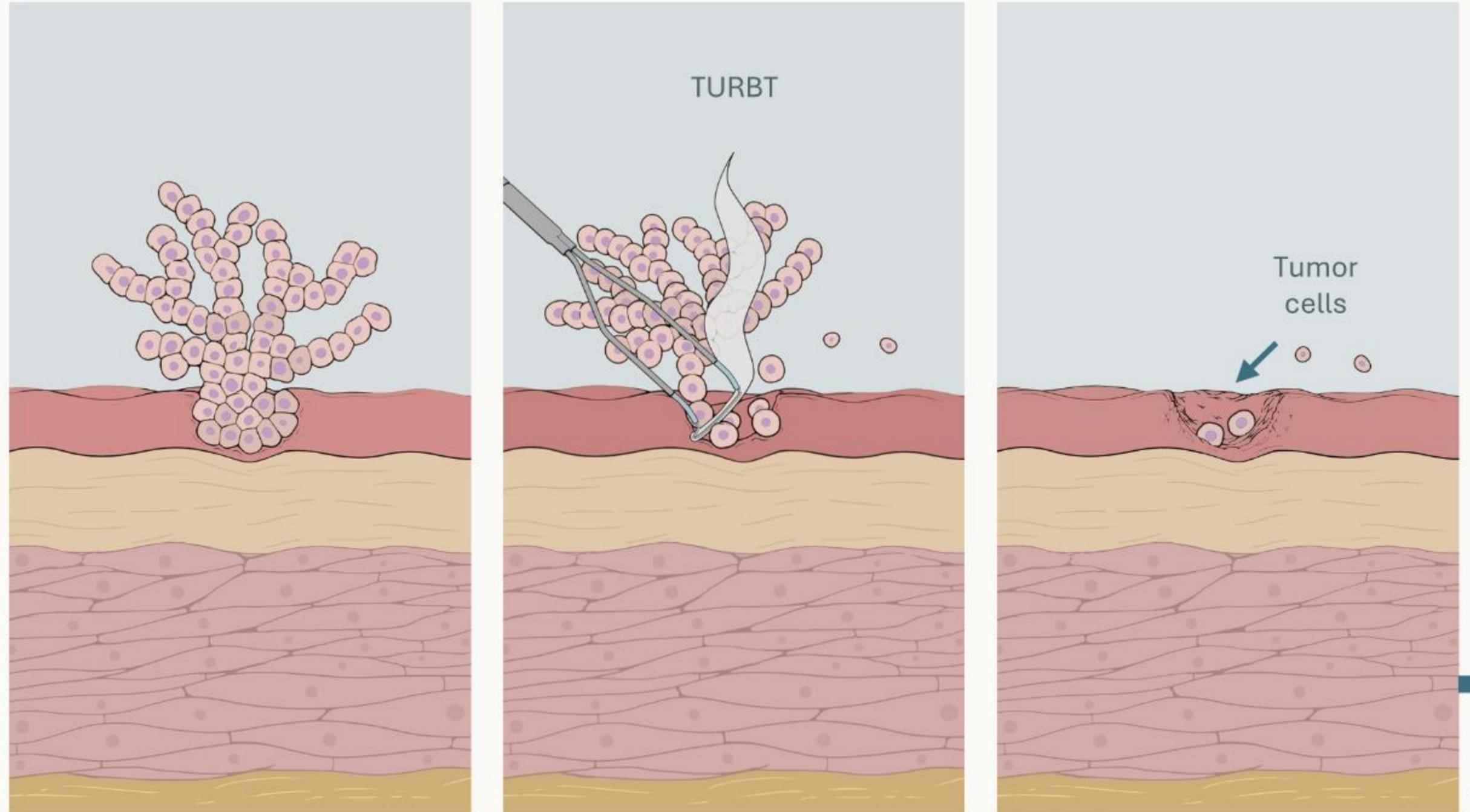


New formulation for urologic therapeutic area

- **Stable at 2–8°C** with simple refrigeration
- Convenient administration in **urologist office** anticipated
 - No need for cold chain (-70°C)
 - No need for biosafety (BSL-2)
 - No need for general anesthesia
 - <20-minute procedure
- **No special delivery or handling expected**
- Adjusted volume and concentration

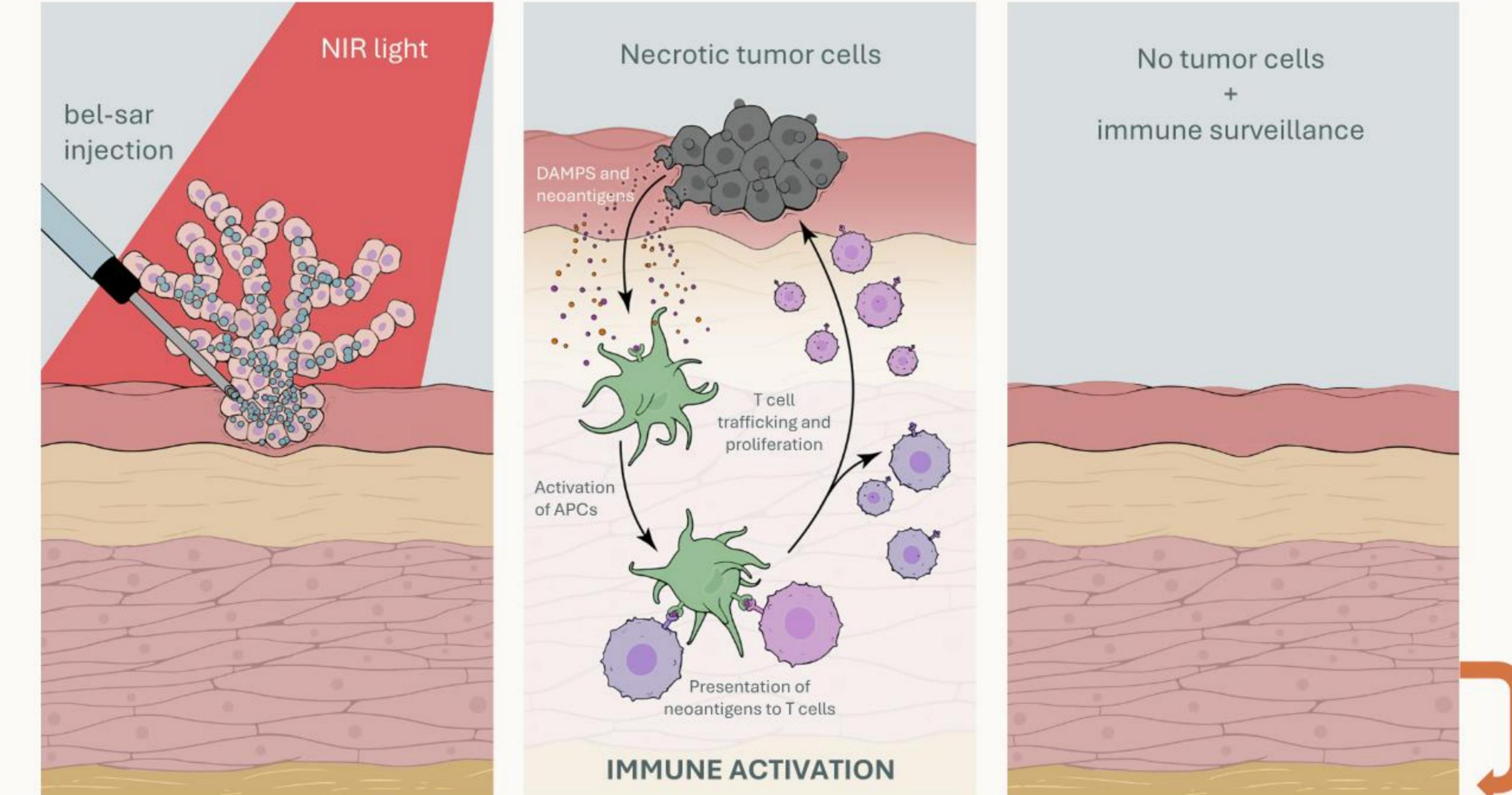
Bel-sar may shift the treatment paradigm from resection-based to immune-ablative front-line treatment

Current SoC: TURBT + adjuvant treatment



**High treatment burden (potential multiple surgeries)
High risk of recurrence**

Bel-sar has an immune-mediated MoA



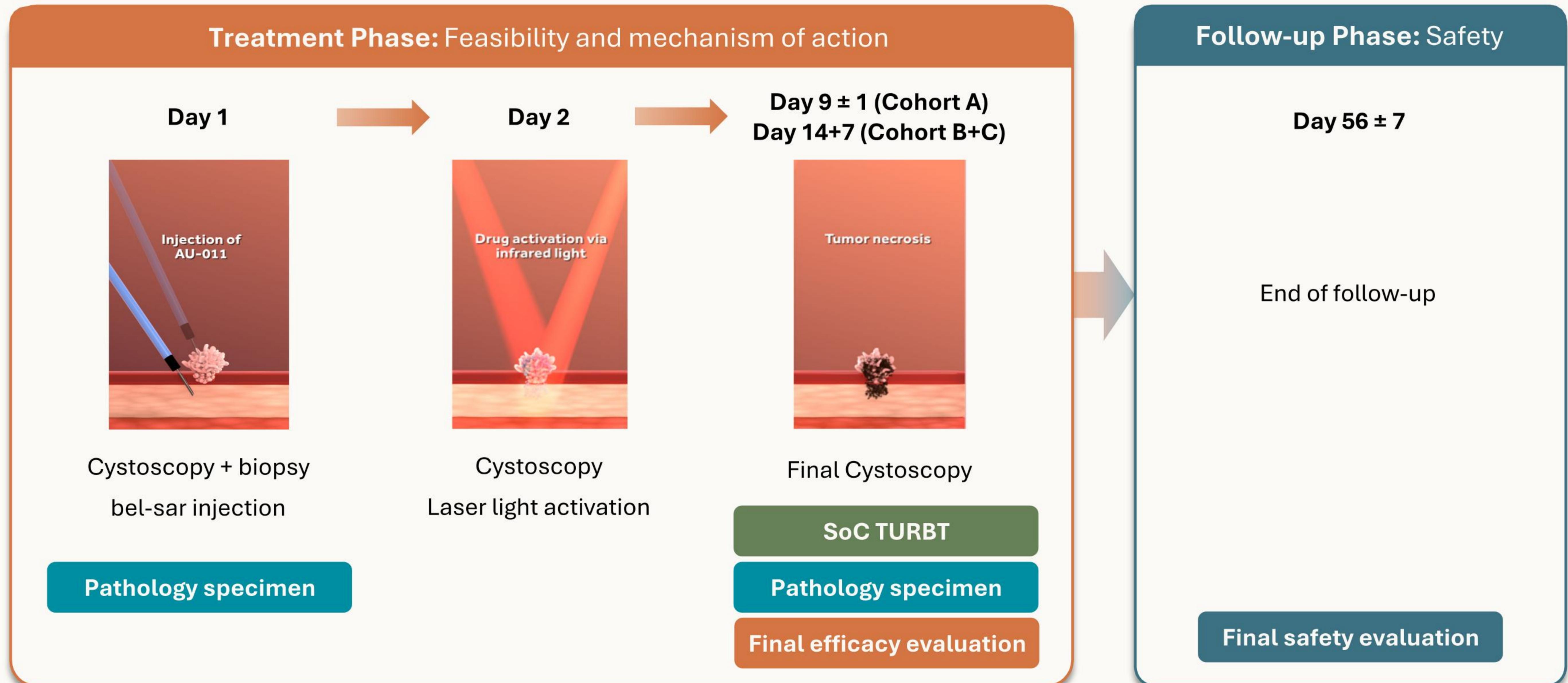
Opportunity for direct tumor cell killing + long-term anti-tumor immunity



Anti-tumor immunity has the potential to provide immune surveillance and long-term protection with minimal treatment burden

Phase 1: Bel-sar administered before scheduled biopsy and standard of care (SoC) TURBT

Clinical response data up to 21 days; safety data up to 56 days



Cohort A-C: Single-dose drug with light activation

Safety data

- No serious adverse events
- No dose limiting toxicities

Cohort A-C: Single-dose drug with light activation (n=12)^a

Event	Grade	Number of patients
Adverse events (related to study drug)		
Nocturia	1	1/12
Urinary urgency	1	1/12
Adverse events (related to injection or laser procedure)		
Hematuria	1	1/12
Urinary blood clots	1	1/12
Nocturia	1	1/12
Urinary urgency	1	1/12
Dysuria	1	1/12

Favorable safety profile observed

- <10% of patients experienced Grade 1 TEAEs related to study drug
- No grade 2/3 adverse events related to study drug (n=17)

^aCompiled safety data includes all completed light-activated cohorts (A, B, and C), including two patients treated but not efficacy evaluable.

TEAE, treatment-emergent adverse event.

Clinicaltrials.gov identifier: NCT05483868; bel-sar-102. Data cutoff date of July 28, 2025.

Efficacy data: Ta intermediate-risk NMIBC

Cohorts A–C (single-dose drug with light activation)

4/5 patients demonstrated CR; 5/5 patients with immune response in target tumor

	Patient A1	Patient A3	Patient A4 ^c	Patient B2	Patient C1 ^d
Screening diagnosis	Multiple (TURBT) Ta low-grade	Multiple Ta low-grade	Multiple Ta low-grade Prior Ta high-grade	Multiple Ta low-grade	Multiple Ta low-grade
Screening AUA risk classification	Intermediate (TURBT) ^f	Intermediate	Intermediate	Intermediate	Intermediate
AU-011 dose/delivery	100 µg IT/IM	100 µg IT/IM	100 µg IT/IM	100 µg IT	200 µg IT
Clinical complete response: Target tumor ^a	✓	✓	✓	-	✓
Clinical complete response: Non-target tumor^a (bladder urothelial field effect^b)	2/2	1/2	1/1	0/1	0/1
Immune response^e: Target tumor	✓	✓	✓	✓	✓
Immune response^e: Non-target tumor	✓	✓	✓	✓	✓
Necrosis	✓	✓	✓	-	-
Visual changes on cystoscopy	✓	✓	-	Tumor visually smaller	✓

^aFor purposes of this analysis, Clinical complete response defined as absence of tumor cells on histopathologic evaluation. ^bBladder urothelial field effect: absence of tumor cells in non-target lesions. ^cPreviously treated tumor demonstrated high-grade disease but pathology at time of treatment revealed low-grade disease in non-target tumor. ^dLocal pathology with no evidence of carcinoma in 3/3 target specimens. Central pathology demonstrated single fibrovascular core in 1/3 target specimens consistent with small area of papillary disease of unclear distance from target injection. ^eImmune response is defined by immunocyte infiltration on post-treatment histopathology. ^fSingle lesion visualized at screening on office cystoscopy. Multiple lesions subsequently seen with improved visualization at time of TURBT qualifying for intermediate risk classification. AUA, American Urological Association; IM, intramural; IT, intratumoral. Clinicaltrials.gov identifier: NCT05483868; AU-011-102. Data cutoff date of March 3, 2025.

Efficacy data: Ta high-risk NMIBC

Cohorts A–C (single-dose drug with light activation)

1/5 patients demonstrated CR; 5/5 patients with immune response in target tumor

	Patient A2	Patient B1	Patient B3	Patient C2	Patient C3 ^d
Screening diagnosis	Single Ta high-grade	Multiple Ta high-grade	Single Ta high-grade	Multiple Ta high-grade	Multiple Ta low-grade Prior Ta high-grade
Screening AUA risk classification	High	High	High	High	High (BCG Failure)
AU-011 dose/delivery	100 µg IT/IM	100 µg IT	100 µg IT	200 µg IT	200 µg IT
Clinical complete response: Target tumor^a	-	-	-	-	✓
Clinical complete response: Non-target tumor^a (bladder urothelial field effect^b)	NA	0/1	NA	NA	1/3
Immune response^c: Target tumor	✓	✓	✓	✓	✓
Immune response^c: Non-target tumor	NA	✓	NA	NA	✓
Necrosis	-	-	-	-	✓
Visual changes on cystoscopy	Tumor visually smaller	Tumor visually smaller	-	Tumor visually smaller	✓

^aClinical complete response defined as absence of tumor cells on histopathologic evaluation. ^bBladder urothelial field effect: absence of tumor cells in non-target lesions. ^cImmune response is defined by immunocyte infiltration on post-treatment histopathology. ^dTwo tumors in target tumor field with 1/2 tumors with clinical complete response. BCG failure qualifying as high risk by AUA criteria Clinicaltrials.gov identifier: NCT05483868; AU-011-102. Data cutoff date of March 3, 2025.

Patient A3

72-year-old Hispanic male

Screening diagnosis: (2024)

- Multiple
- **Ta low-grade (<3 cm)**
- No CIS

Screening AUA risk classification: Intermediate

Initial diagnosis: (2019)

- Ta high-grade <3 cm
- No CIS
- Intermediate risk

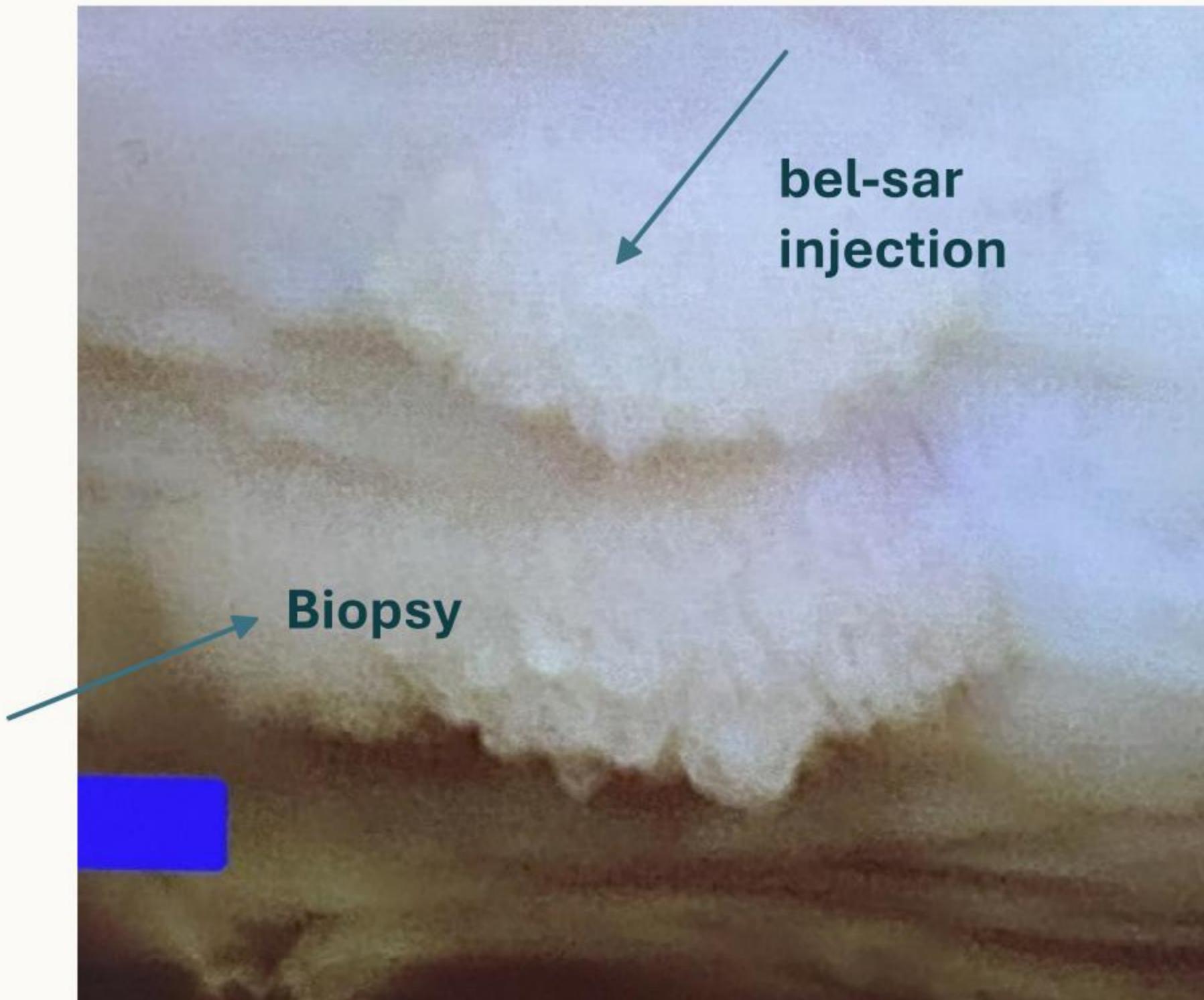
Prior TURBT:

- 2019, 2020 (x2), 2021 (x2), 2023

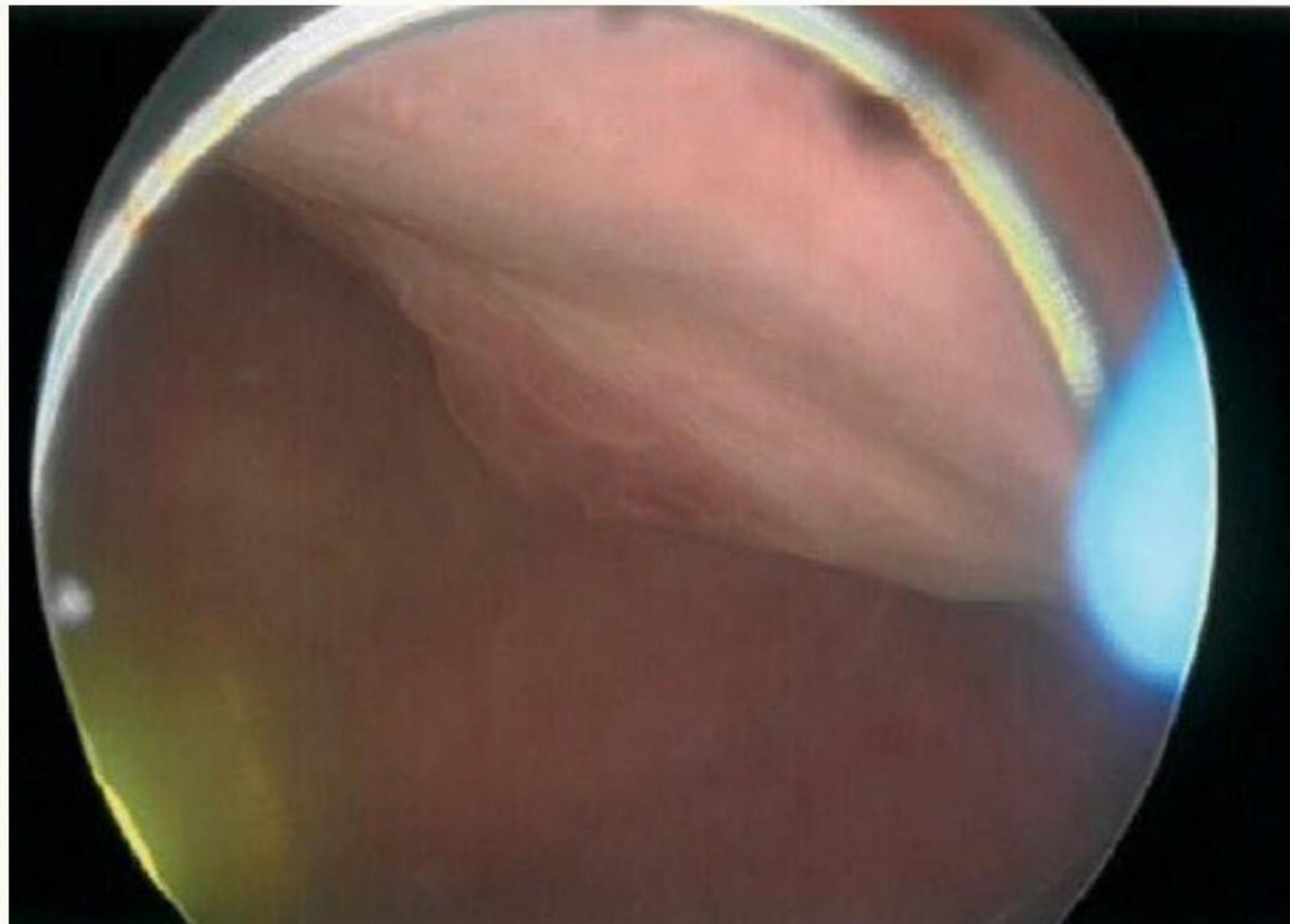
Prior adjuvant therapies:

- BCG induction and maintenance
(2020-2021)

Clinical complete response visualized at time of TURBT confirmed with histopathologic evaluation



Pre-injection/pre-biopsy appearance of tumor on office cystoscopy



Post-injection edema and ecchymosis at injection site

Mature Tertiary Lymphoid
Structures (TLS) in Target
(Treated) Lesion:

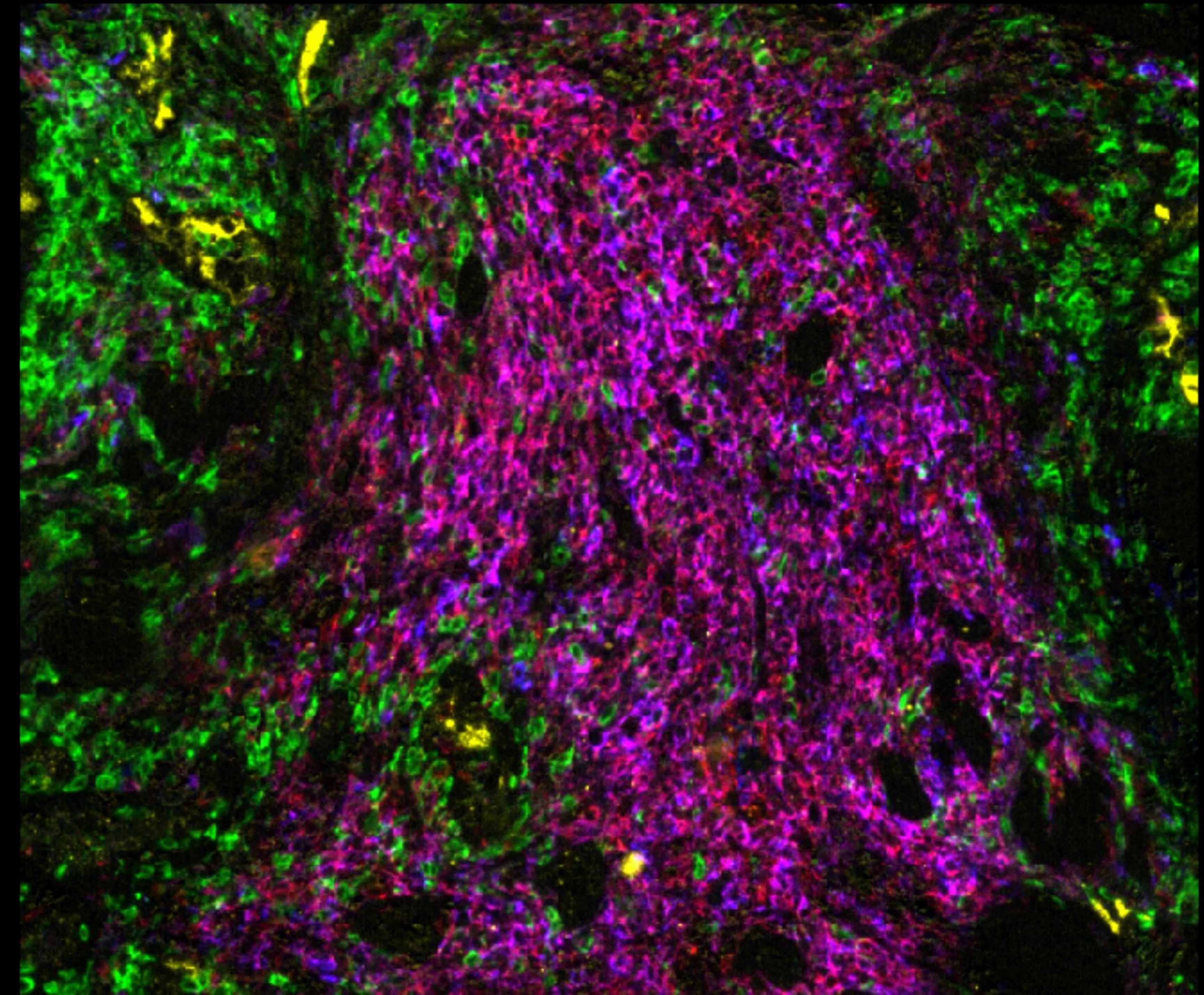
**Active Immunosurveillance After
Bel-sar Treatment**

CD3: T cells

CD20: B cells

CD23: Follicular Dendritic Cells (FDC)
**(Found in B cell follicles, only present in
mature TLS)**

PNAd: Peripheral Node Addressin
**(Stains for high endothelial venules, evidence
of lymphocyte trafficking from periphery)**



Multiplex Immunofluorescence: Patient A3 (Intermediate-Risk NMIBC)

TLS Not Present in Lesion Prior to Treatment

Early Tertiary Lymphoid Structures (TLS) in Distant Non-Target (Non-Treated) Lesion:

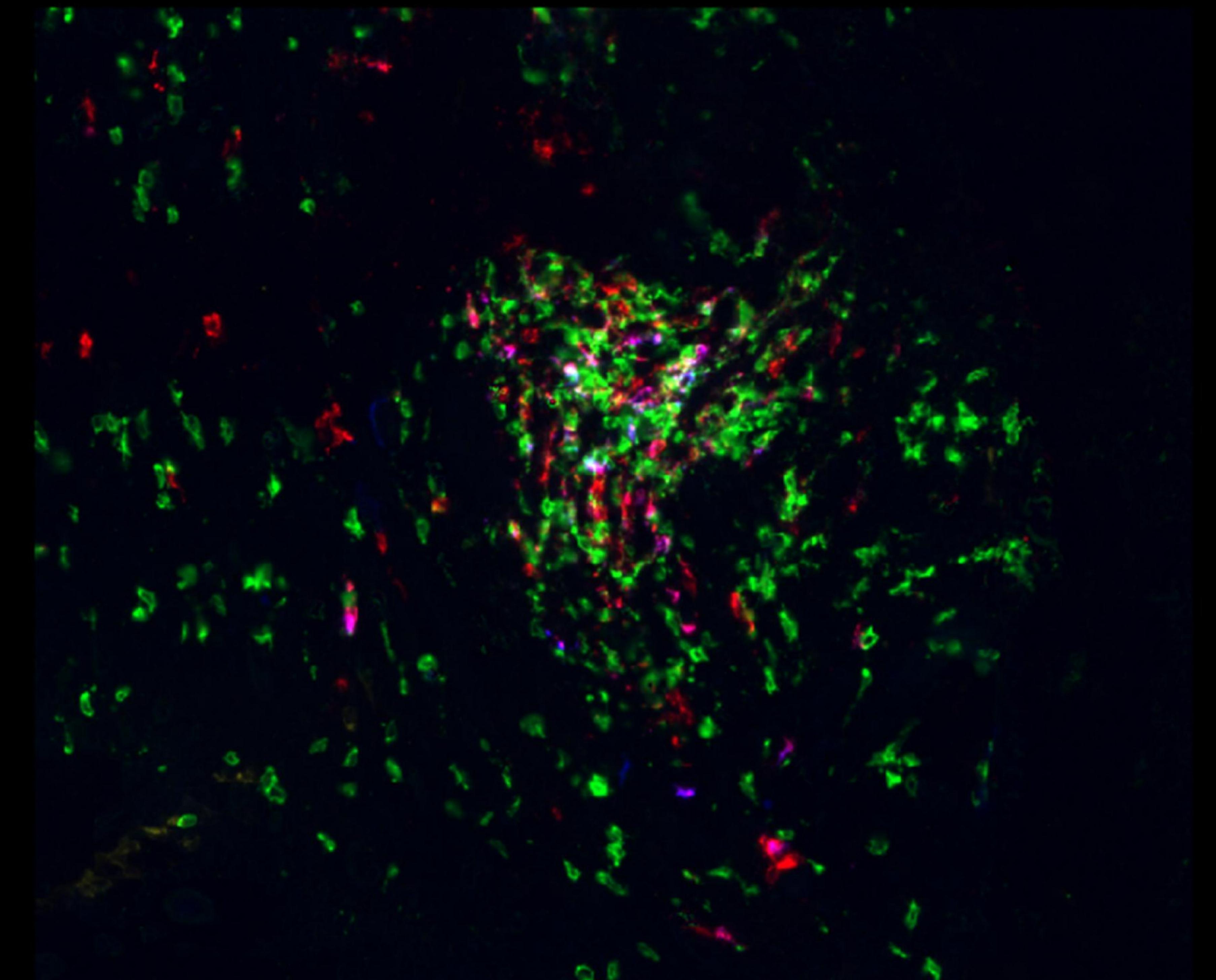
Urothelial Immune Field Effect After Bel-sar Treatment

CD3: T cells

CD20: B cells

CD23: Follicular Dendritic Cells (FDC)
(Found in B cell follicles, only present in mature TLS)

PNAd: Peripheral Node Addressin
(Stains for high endothelial venules, evidence of lymphocyte trafficking from periphery)



Multiplex Immunofluorescence: Patient A3
(Intermediate-Risk NMIBC)

Advancing bel-sar in NMIBC: Phase 1b/2 trial overview

Goal: Evaluate potential across disease spectrum and determine dose levels to advance clinical development of bel-sar in bladder cancer



Potential use across disease spectrum

~26 patients with NMIBC

Intermediate-risk

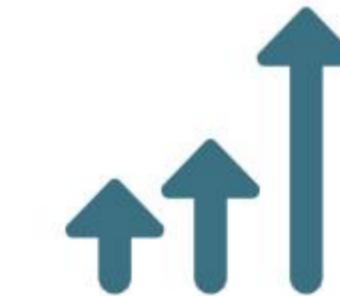
High-risk



Two front-line treatment approaches

Immune-ablative

Multimodal neoadjuvant
(bel-sar followed by TURBT)



Dose escalation and multiple doses

Higher dose bel-sar

Up to 3 tumors per treatment

Two treatment cycles

Patients assessed for **response/recurrence** at 3, 6, 9 and 12 months | **Duration of response** monitored up to 12 months

Company highlights



Corporate

- **Current Cash** expected to fund operations into **1H 2027**
- **Experienced leadership** team across functions



Urologic Oncology Therapeutic Area

- **Multiple clinical complete responses** with single low dose in phase 1 NMIBC trial
- **Phase 1b/2 trial** evaluating additional doses, treatment regimens, and durability of response in NMIBC advancing on track



Ocular Oncology Therapeutic Area

Early choroidal melanoma

- **Global phase 3 CoMpass** trial actively enrolling; study enrollment may be completed as early as the end of 2025
- **Special Protocol Assessment (SPA)** agreement with FDA

Metastases to the choroid

- **Initial phase 2 data** expected in 2025
- This ocular oncology indication **potentially doubles market opportunity**¹

Cancers of the ocular surface

- **Initial phase 1 data** expected in 2026
- One of the largest ocular oncology indications

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

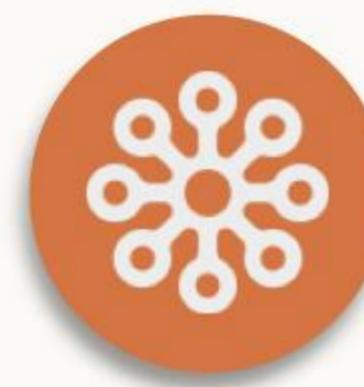
Bel-sar (AU-011) is an investigational product candidate. The effectiveness and safety of bel-sar have not been established, and bel-sar is not approved for use in any jurisdiction.

Appendix VDC Platform



Virus-like drug conjugates (VDCs) have potential advantages over antibody-drug conjugates (ADCs)

High tumor cell killing with preservation of organs and function



	Antibody-drug conjugate	Bel-sar
DAR (drug-antibody/VLP ratio)	2–8	200–500
Binding	Bivalent	Multivalent
Tumor Tropism	Narrow	Broad
Delivery	Systemic	Local
Cytotoxicity	Active systemically when unbound	Active only when lasered; laser applied only to tumor
Mechanism of action	Varied; payload-dependent and often cancer pathway-dependent	Direct tumor cell killing and immune activation; unrelated to tumor genetics
Safety	Potential binding/activation in healthy tissues	Tumor-localized binding and focused light activation

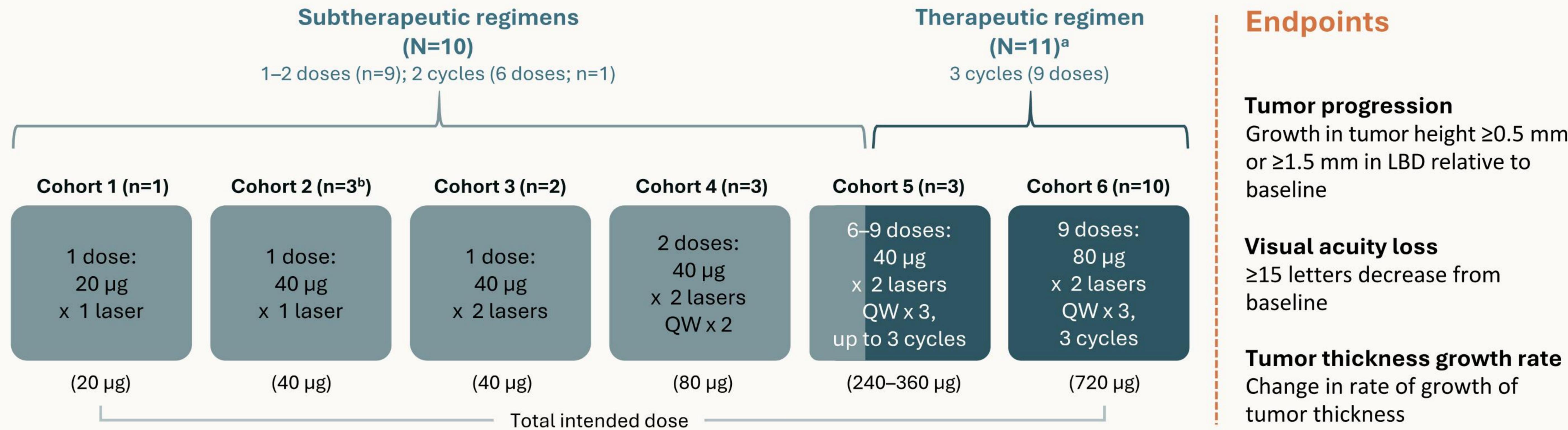
Appendix Ocular Oncology



Phase 2 trial of bel-sar for choroidal melanoma: Open-label, dose-escalation with suprachoroidal administration

Trial design – 22 participants enrolled

Patient population representative of early-stage disease: Small choroidal melanoma and indeterminate lesions



Goal: To determine safety, optimal dose and therapeutic regimen with suprachoroidal administration

One cycle = Doses on days 1, 8, and 15.

^a12 patients enrolled, 1 patient who discontinued after 1 cycle due to unrelated SAEs is not included in data analysis (n=11). ^bCohort 2: 2 participants were planned; third participant was additionally enrolled due to dose error in 1 participant.

QW, every week. ClinicalTrials.gov Identifier, NCT04417530: AU-011-202. Data on file, Aura Biosciences.

Baseline characteristics

All study participants

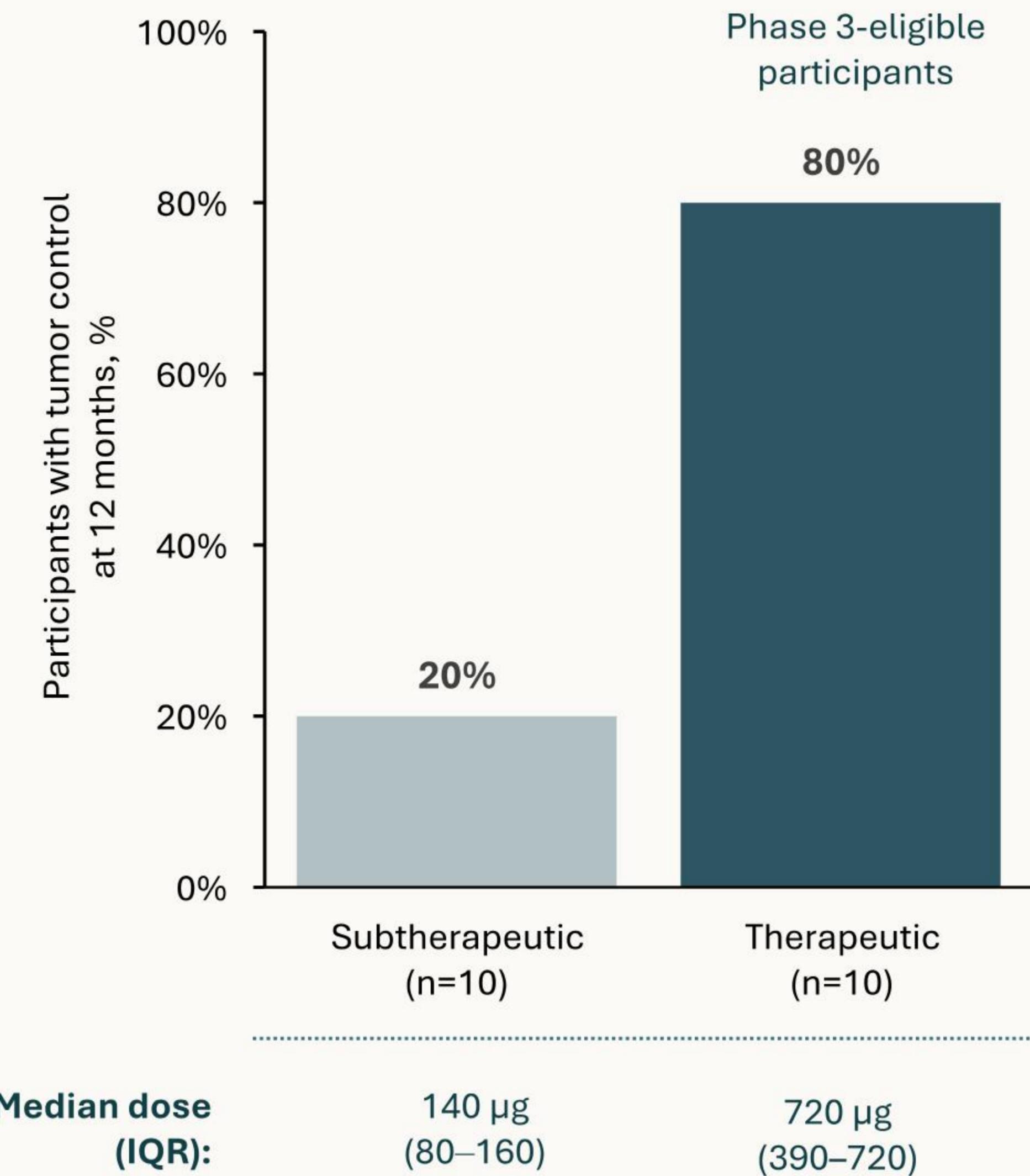
All patients (n=22)	
Female (%)	54.5
White, not Hispanic or Latino (%)	100
Subretinal fluid at screening (%)	100
Orange pigment at screening (%)	86.4
Documented growth prior to screening (%)	86.4 <i>(100% of therapeutic group)</i>
Mean age at screening (years, \pm SD)	59.2 (\pm 16.5)
Mean baseline BCVA in study eye (ETDRS letters, \pm SD)	83.2 (\pm 7.2)
Mean baseline LBD (mm, \pm SD)	8.5 (\pm 1.4)
Mean baseline tumor thickness (mm, \pm SD)	2.0 (\pm 0.5)
Mean tumor distance to closest vision-critical structure at screening (mm, \pm SD)	2.0 (\pm 2.3)
Tumors at high risk for vision loss (%) ^a	73% <i>(80% [8/10] of therapeutic group)</i>

^aHigh risk for vision loss defined as tumor edge within either 3 mm of foveal center or 3 mm of optic disc edge.
Data on file, Aura Biosciences.

High local complete response rate at 12 months follow-up

80% tumor control rate^a at 12 months among the 10 phase 3-eligible patients in the 3-cycle cohorts

High tumor control rates with therapeutic regimen in phase 3-eligible patients with active growth

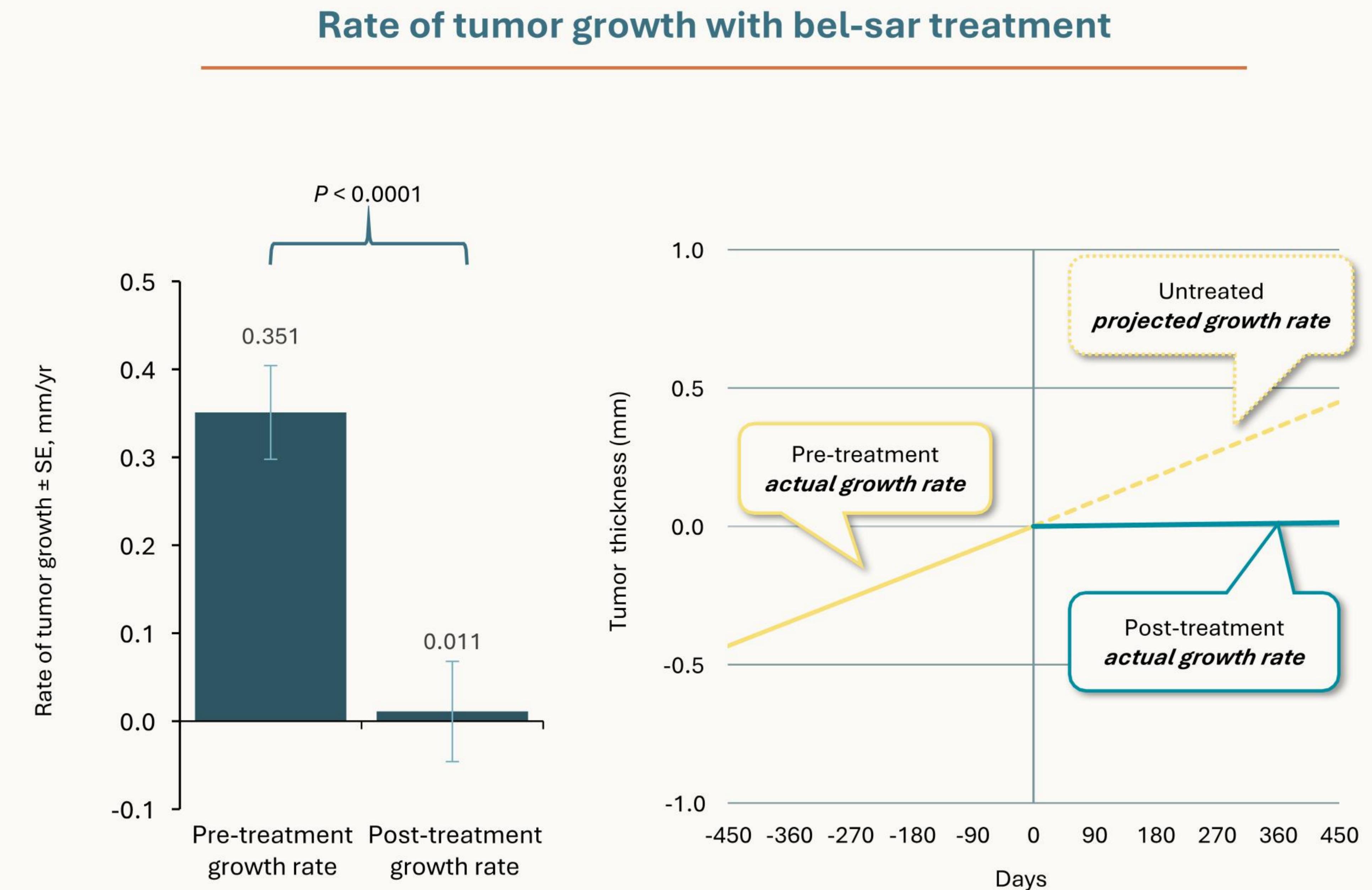


^aLocal complete response, or CR, in early-stage choroidal melanoma is described as tumor control and complete arrest of tumor growth by ocular oncologists.

^bOne participant with circumpapillary tumor that did not meet phase 3 criteria is not included.

IQR, interquartile range. ClinicalTrials.gov Identifier, NCT04417530: AU-011-202. Data on file, Aura Biosciences.

In phase 3-eligible patients, the 3-cycle regimen resulted in cessation of growth among responders (N=8)

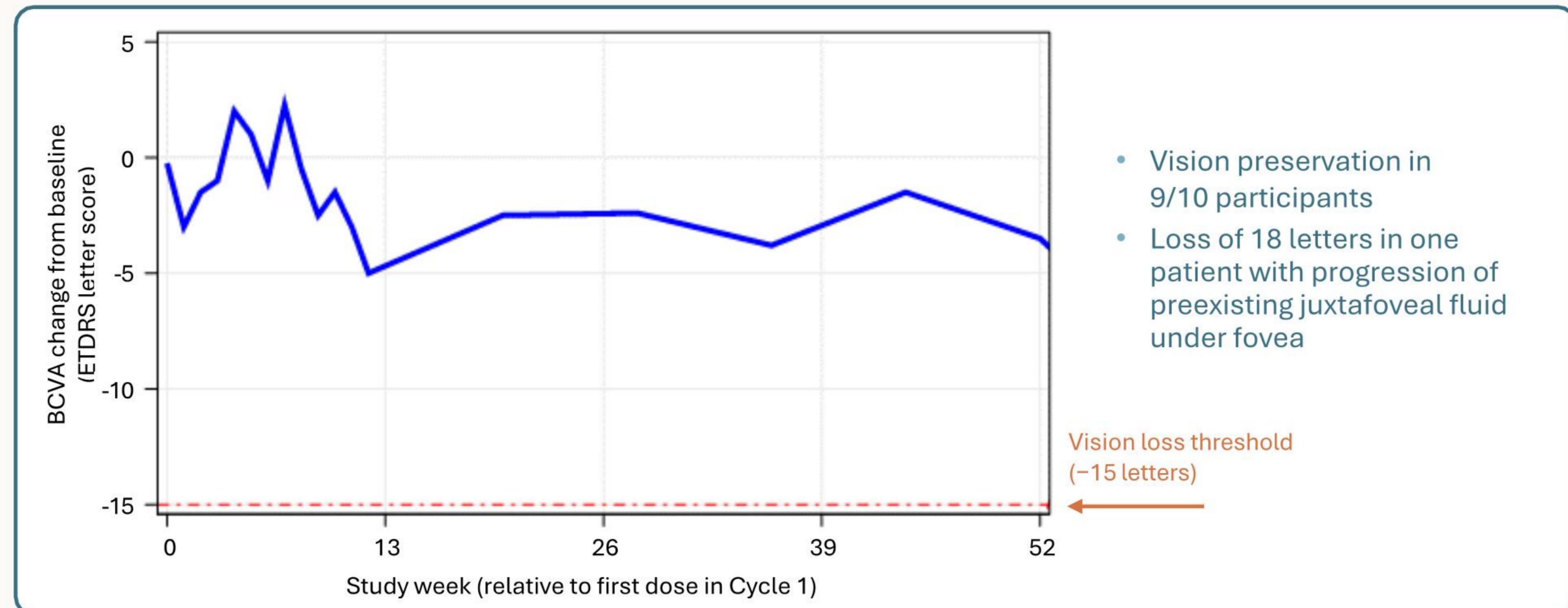


Tumor thickness growth rates/slopes estimated using Mixed Models for Repeat Measures (MMRM); random intercept and slope model for Historical and Study periods. ClinicalTrials.gov Identifier, NCT04417530: AU-011-202. Data on file, Aura Biosciences.

Visual acuity was preserved in 90% of phase 3-eligible patients receiving a bel-sar therapeutic regimen

- 80% were at high risk of vision loss with tumors < 3 mm to the fovea or optic nerve
- 90% visual acuity preservation supports the potential for bel-sar to be a front-line therapy for early-stage disease

Median change in BCVA in phase 3-eligible participants with therapeutic regimen (N=10)^a



- Vision preservation in 9/10 participants
- Loss of 18 letters in one patient with progression of preexisting juxtapapillary fluid under fovea

Populations	Patients (n)	Vision failures ^b (n)	Vision preservation rate (%)
All dose cohorts			
All treated patients	22	1	95%
Subtherapeutic			
≤2 cycles	10	0	100%
Therapeutic			
3 cycles and phase 3-eligible ^a	10	1	90%

^aOne participant with circumpapillary tumor that did not meet phase 3 criteria is not included. ^bVision acuity loss defined as ≥15 letters decrease from baseline in ETDRS BCVA letter score.

ClinicalTrials.gov Identifier, NCT04417530: AU-011-202. Data on file, Aura Biosciences.

Bel-sar treatment had a favorable safety profile

- No posterior inflammation
- No treatment-related SAEs
- No grade 3–5 treatment-related AEs

Phase 2 safety outcomes (bel-sar/laser-related)

Drug/laser-related adverse events	All treated participants (n=22)*			
	Grade I	Grade II	Grade III-V	Total
Anterior chamber inflammation**	4 (18.2%)	0	0	4 (18.2%)
Anterior chamber cell**	2 (9.1%)	0	0	2 (9.1%)
Eye pain	2 (9.1%)	0	0	2 (9.1%)
Anisocoria	1 (4.5%)	0	0	1 (4.5%)
Conjunctival edema	1 (4.5%)	0	0	1 (4.5%)
Cystoid macular edema	1 (4.5%)	0	0	1 (4.5%)
Pupillary reflex impaired	1 (4.5%)	0	0	1 (4.5%)
Salivary gland enlargement	0	1 (4.5%)	0	1 (4.5%)

**Median duration 6 days (IQR: 3–10 days); All resolved with no or minimal treatment; If topical steroids given, median treatment duration 6 days

* Table presents participants with AEs related to bel-sar or laser by severity and overall; participants with >1 AE are counted in the highest severity group.
ClinicalTrials.gov Identifier: NCT04417530; AU-011-202. Data on file, Aura Biosciences.

Phase 2 data support phase 3 assumptions

Robustness analysis of 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

Appendix Urologic Oncology



Paradigm-shifting treatment approach

Treat the tumor first to generate cell-mediated immunity (CMI)

Immune-ablative (-TURBT)

Treat tumor with bel-sar first and avoid the need for TURBT

Value proposition:

- Prevent recurrence and progression by treating the tumor and generating CMI
- Avoid surgery (TURBT) and general anesthesia
- Office-based procedure

Patient population:

- Intermediate-risk NMIBC patients

Neoadjuvant/multimodal (+ TURBT)

Treat tumor with bel-sar first ahead of TURBT

Value proposition:

- Prevent recurrence and progression by treating the tumor first and generating CMI
- Avoid multiple cycles of adjuvant treatments (e.g., BCG, chemotherapy)
- Office-based procedure

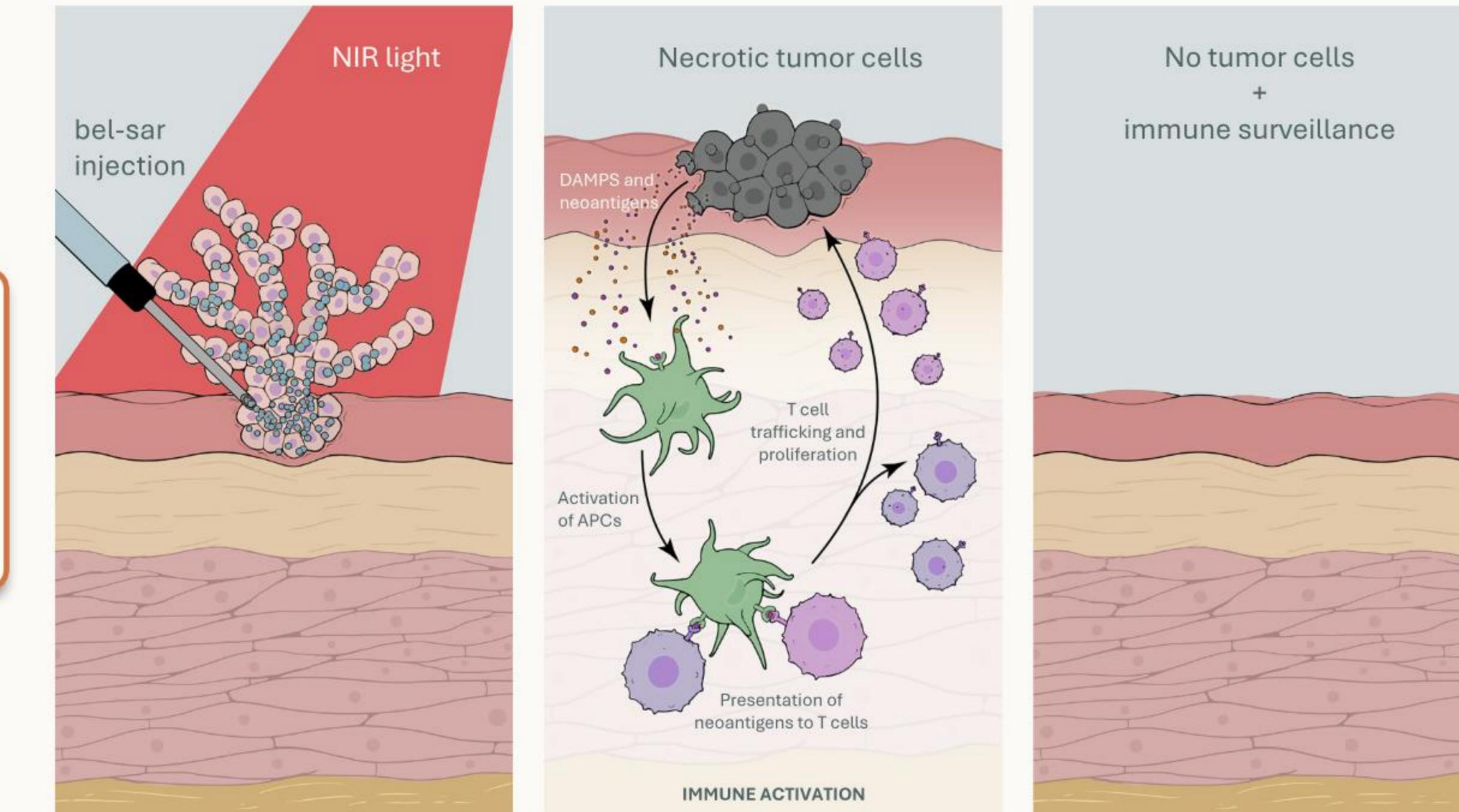
Patient population:

- Intermediate-risk and high-risk NMIBC patients; potential to expand to MIBC

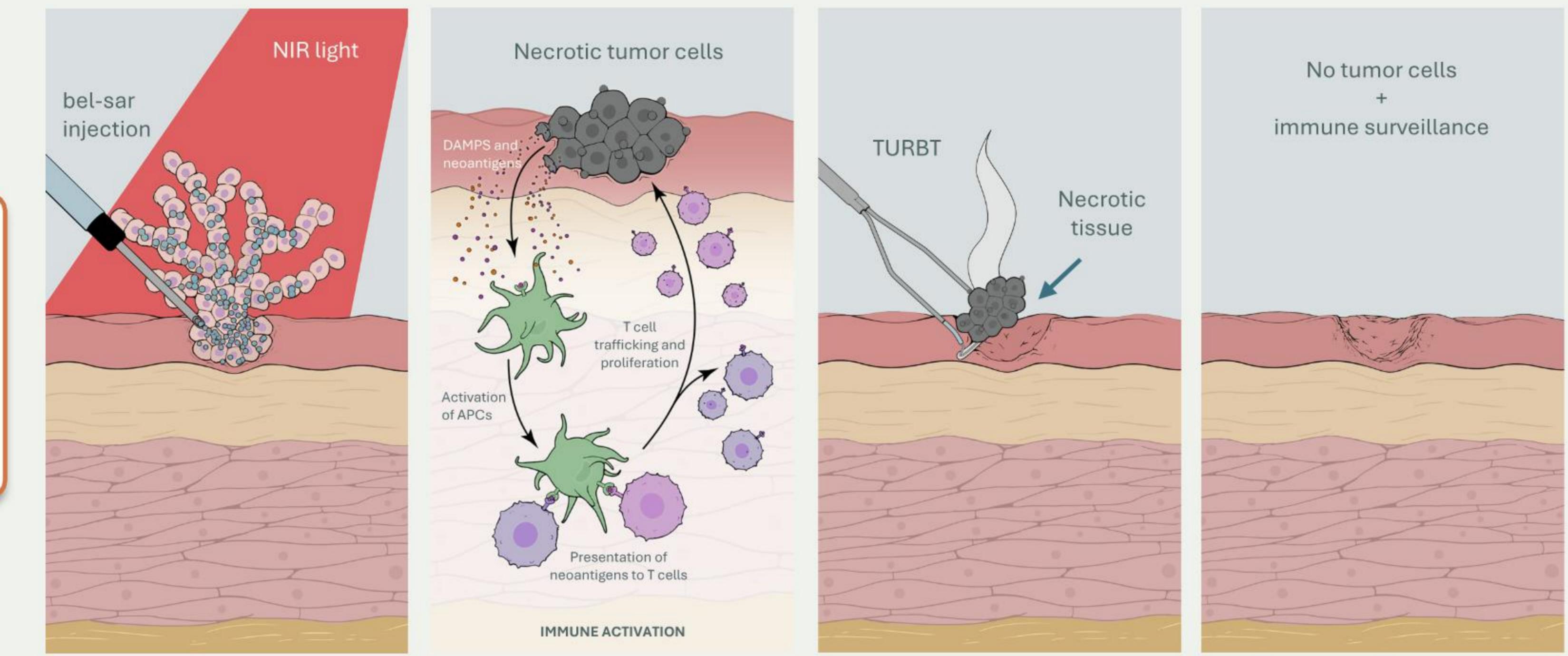
Bel-sar has potential as a standalone immune-ablative treatment or as a neoadjuvant to TURBT

Immune-ablative approach could eliminate the need for TURBT, or be used prior to resection to improve treatment outcomes

1 Immune-ablative treatment without TURBT (LR/IR NMIBC)



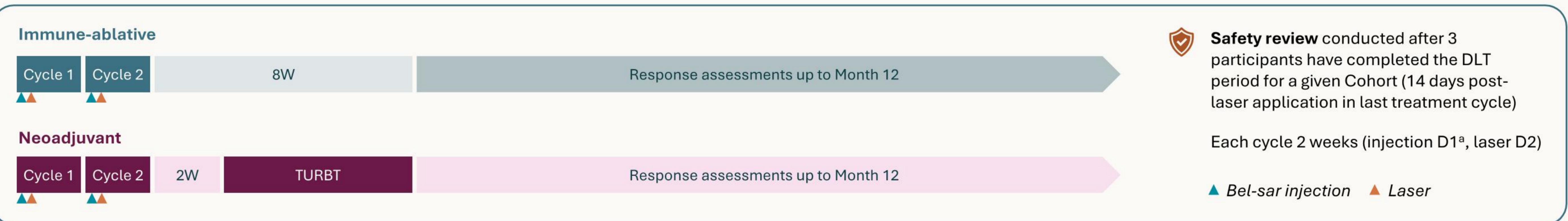
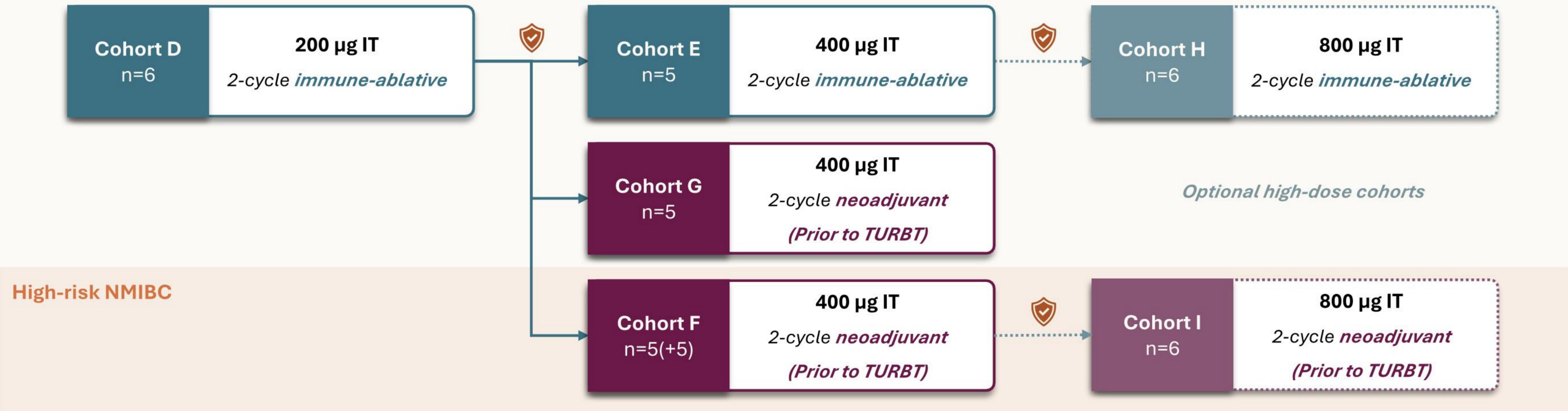
2 Neoadjuvant/ multimodal therapy followed by TURBT (IR/HR NMIBC)



HR, high-risk; IR, intermediate risk; LR, low-risk.

Advancing bel-sar in NMIBC: Phase 1b/2 study design

Intermediate-risk NMIBC



Dose per tumor, per treatment. Up to three tumors treated per visit. ^a+2-day window for injection in 2nd treatment cycle.

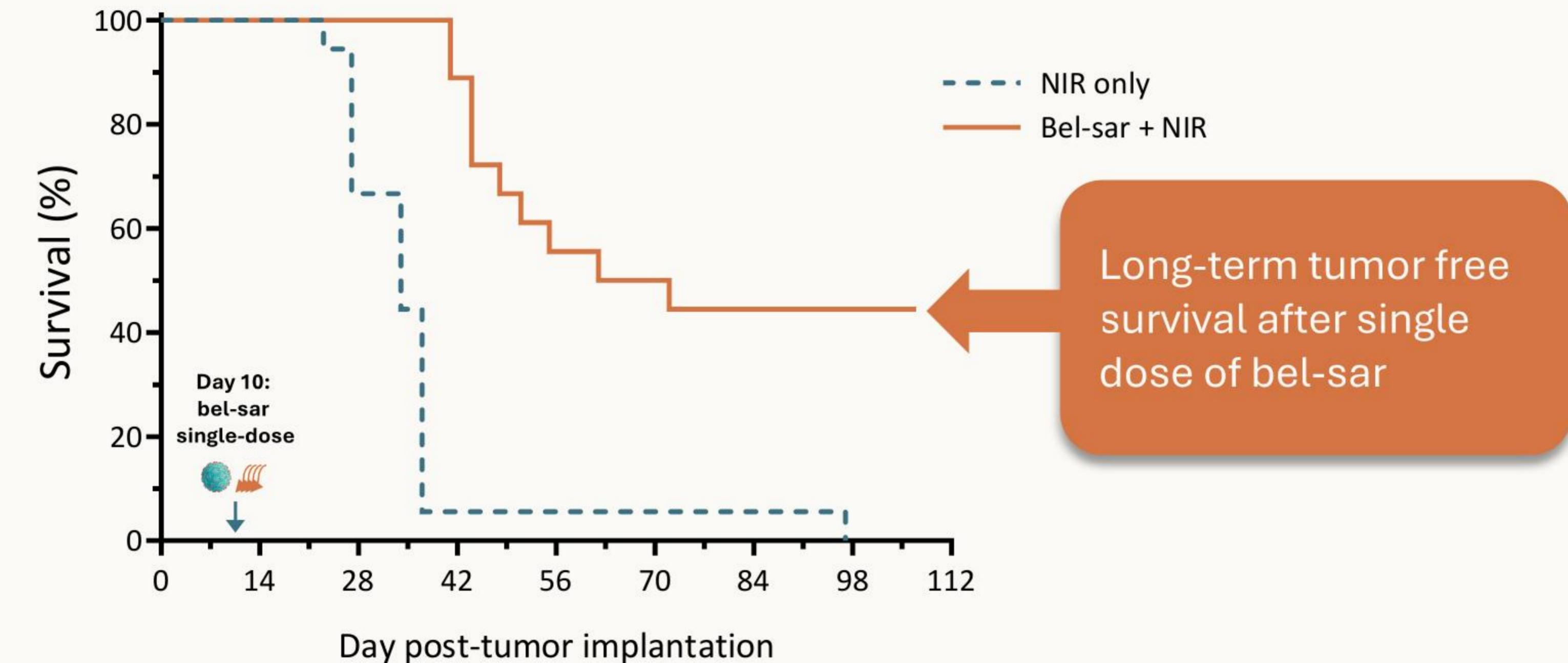
D, day; W, week.

Clinicaltrials.gov identifier: NCT05483868; AU-011-102.

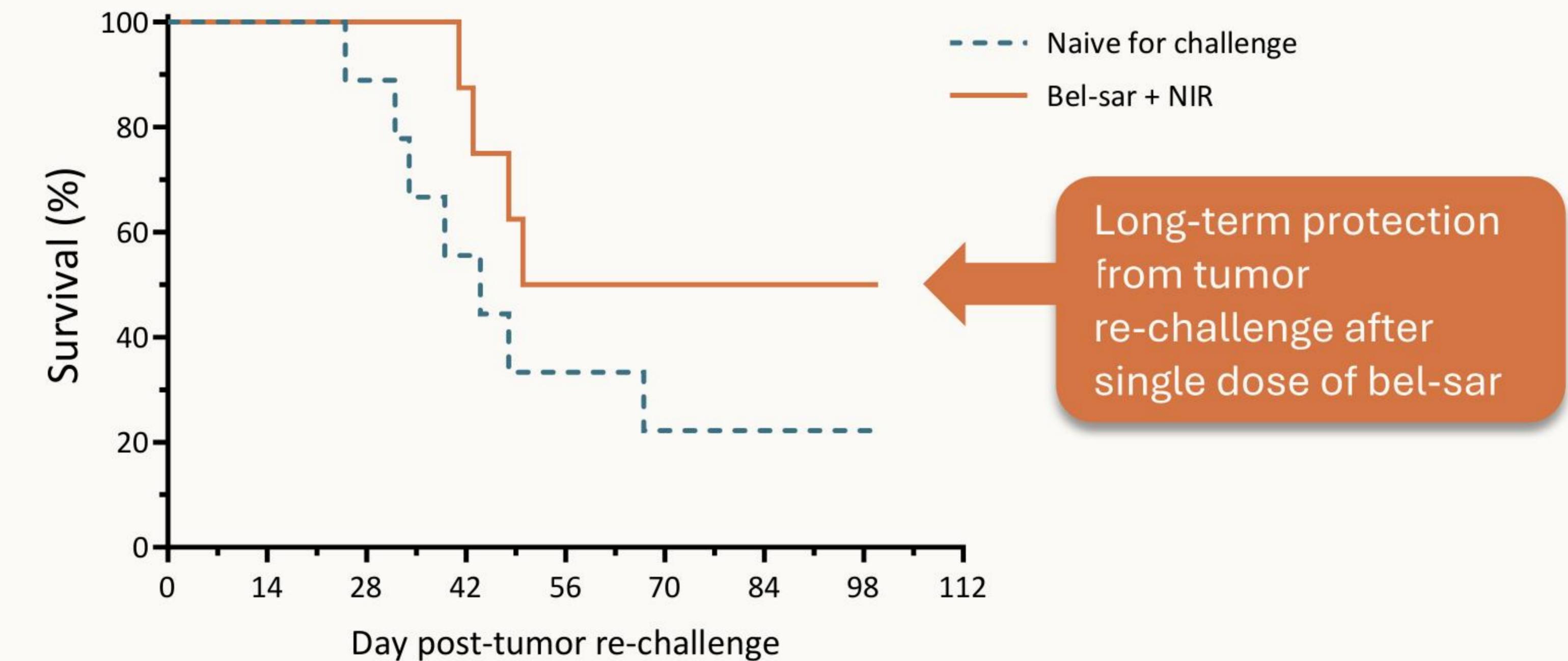
A single systemic treatment of bel-sar resulted in long-term tumor-free survival and induction of anti-tumor responses in TC-1 murine tumor model

- Long-term tumor-free survival and protection from tumor re-challenge
- CD4+ and CD8+ T-cells are required both at the time of treatment and at the time of re-challenge

Tumor-free survival after single dose of bel-sar

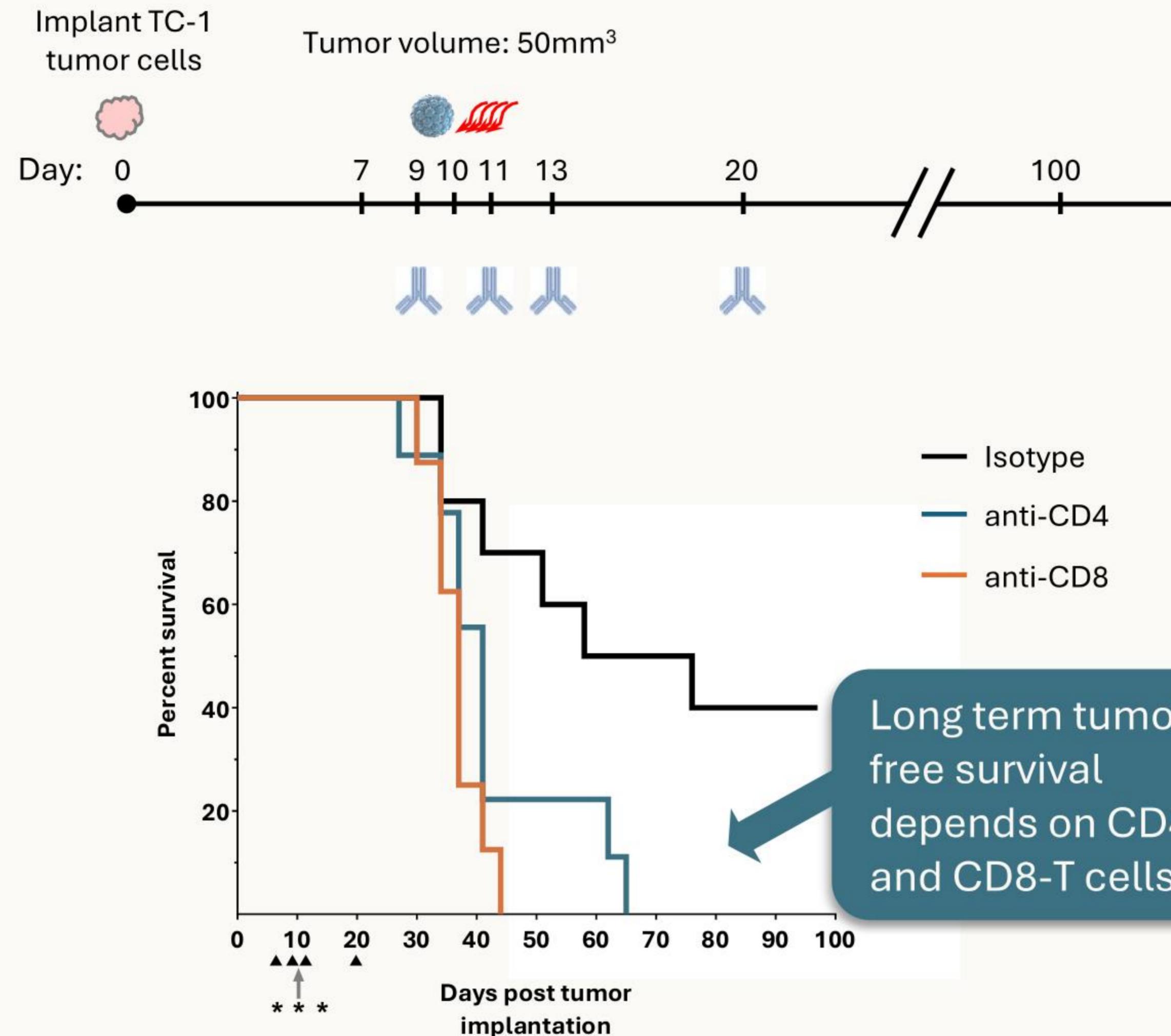


Tumor-free survival after tumor re-challenge



CD4+ and CD8+ T-cells are key to the long-term durability of response and protection of rechallenge with bel-sar

Depletion of CD4+ and CD8+T cells at the time of treatment



Depletion of CD4+ and CD8+T cells at the time of rechallenge

