

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 11, 2023

Aura Biosciences, Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-40971
(Commission File Number)

32-0271970
(IRS Employer
Identification No.)

80 Guest Street
Boston, Massachusetts
(Address of Principal Executive Offices)

02135
(Zip Code)

Registrant's Telephone Number, Including Area Code: 617 500-8864

Not Applicable

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.00001 par value per share	AURA	The Nasdaq Global Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 2.02. Results of Operations and Financial Condition.

On May 11, 2023, Aura Biosciences, Inc. (the “Company”) issued a press release announcing its financial results for the quarter ended March 31, 2023. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in this Form 8-K, including Exhibit 99.1 hereto, shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 8.01. Other Events

On May 11, 2023, the Company updated its corporate presentation for use in meetings with investors, analysts and others. A copy of the corporate presentation is filed as Exhibit 99.2 for purposes of Section 18 of the Exchange Act.

Forward Looking Statements

Statements contained under this Item 8.01 regarding matters that are not historical facts are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Such statements include, but are not limited to, 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 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 ability to commercialize our products, if approved; and the implementation of our business model, and strategic plans for our business and product candidates.

Any forward-looking statements are neither promises nor guarantees, and investors should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties, and other factors, many of which are beyond the Company’s control and which could cause actual results to differ materially from those expressed or implied by these forward-looking statements, including, without limitation, uncertainties inherent in clinical trials and in the availability and timing of data from ongoing clinical trials; the expected timing for submissions for regulatory approval or review by governmental authorities; the risk that the results of the Company’s clinical trials may not be predictive of future results in connection with future clinical trials; the risk that interim data from ongoing clinical trials may not be predictive of final data from completed clinical trials; the risk that governmental authorities may disagree with the Company’s clinical trial designs, even after governmental authorities have reviewed and commented on such clinical trial designs; whether the Company will receive regulatory approvals to conduct trials or to market products; whether the Company’s cash resources will be sufficient to fund its foreseeable and unforeseeable operating expenses and capital expenditure requirements; risks, assumptions and uncertainties regarding the impact of the COVID-19 pandemic on the Company’s business, operations, strategy, goals and anticipated timelines; the Company’s ongoing and planned pre-clinical activities; and the Company’s ability to initiate, enroll, conduct or complete ongoing and planned clinical trials. These risks, uncertainties, and other factors include those risks and uncertainties described under the heading “Risk Factors” in the Company’s most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q filed with the U.S. Securities and Exchange Commission (“SEC”) and in subsequent filings made by the Company with the SEC, which are available on the SEC’s website at www.sec.gov. Except as required by law, the Company disclaims any intention or responsibility for updating or revising any forward-looking statements contained in this press release in the event of new information, future developments or otherwise. These forward-looking statements are based on the Company’s current expectations and speak only as of the date hereof and no representations or warranties (express or implied) are made about the accuracy of any such forward-looking statements.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Press Release Dated May 11, 2023
99.2	Corporate presentation of the Company
104	Cover Page Interactive Data File (embedded within Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Aura Biosciences, Inc.

Date: May 11, 2023

By:

/s/ Julie Feder

Julie Feder
Chief Financial Officer

Aura Biosciences Reports First Quarter 2023 Financial Results and Provides Clinical Development and Operational Highlights

U.S. Food and Drug Administration (FDA) Guidance in Type C Meeting Supports Global Phase 3 Trial in Early-stage Choroidal Melanoma

Enrollment Complete in Phase 2 Trial in Choroidal Melanoma Using Suprachoroidal Route of Administration

BOSTON, MA - May 11, 2023 – Aura Biosciences Inc. (NASDAQ: AURA), a clinical-stage biotechnology company developing a novel class of virus-like drug conjugate (VDC) therapies for multiple oncology indications, today reported financial results for the first quarter ended March 31, 2023, and provided clinical development and operational highlights.

“We are encouraged by our recent interactions with the FDA in support of our global Phase 3 trial designed to enable us to develop the first vision preserving targeted therapy for the treatment of patients with early-stage choroidal melanoma, a disease with a high unmet medical need and no approved therapies,” said Elisabet de los Pinos, Ph.D., Chief Executive Officer of Aura. “With a strong balance sheet, we are well-positioned to execute and advance our pipeline to meaningful clinical milestones.”

Recent Pipeline Developments

- **Aura is planning to initiate a potentially registration-enabling Phase 3 clinical trial in 1H 2023 to evaluate the safety and efficacy of Belzupacap Sarotalocan (bel-sar) for the first-line treatment of adult patients with early-stage choroidal melanoma (CM), a life-threatening rare disease with no approved therapies.**
 - o **The Phase 3 clinical trial design incorporates guidance and feedback from the FDA following a recent Type C meeting.**
 - The FDA recommended that the Phase 3 trial follow a standard three-arm randomized, controlled and masked design. The trial is intended to enroll approximately 100 patients and it will be randomized 2:1:2 to receive investigational therapeutic regimen bel-sar, low dose regimen bel-sar or a sham control. The primary efficacy analysis is planned to be a time to event composite endpoint that will compare the tumor control and visual acuity of the therapeutic regimen group to sham when the last patient meets 12 months of follow up.
 - o **Enrollment is complete in the Phase 2 trial evaluating suprachoroidal (SC) administration of bel-sar for the first-line treatment of adult patients with early-stage CM.** Updated interim data of patients treated with the therapeutic regimen intended to be used in the Phase 3 trial is on track to be presented in 2H 2023.
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- **Enrollment is ongoing for the Phase 1 trial of bel-sar for the treatment of non-muscle invasive bladder cancer (NMIBC).** This represents an area of high unmet need with approximately 80,000 patients diagnosed in the United States every year. Aura received Fast Track Designation from the Oncology Division of the FDA for this indication in June 2022.
 - o The Phase 1 multi-center, open-label clinical trial is expected to enroll approximately 23 adult patients. The trial is designed to assess the safety and tolerability of bel-sar as a single agent. The primary endpoint of the Phase 1 trial is the incidence and severity of treatment-related adverse events, serious adverse events and/or the incidence of dose-limiting toxicities. The trial will provide histopathological evaluation after the local treatment to support bel-sar's biological activity. Aura expects to report initial Phase 1 data in 2H 2023.
- **Beyond early-stage CM, Aura continues to build its ocular oncology franchise.** Aura's goal is to initiate clinical development in choroidal metastasis, an indication with a high unmet medical need and no approved therapies, as the second ocular oncology indication. Aura received Fast Track Designation from the Oncology Division of the FDA for this indication in February 2023, and the Investigational New Drug application was opened in January 2023. Aura is on track to initiate start-up activities for the Phase 2 trial in 2H 2023.

Recent Corporate Events

- **Enhanced Senior Leadership Team.** In March 2023, Aura appointed Patrick Nealon as SVP, Clinical Development Operations. Mr. Nealon brings over 20 years of biopharmaceutical industry experience, leading the clinical development of therapeutics across multiple disease areas. Mr. Nealon will be responsible for overseeing all aspects of clinical operations as Aura transitions into late-stage clinical development.

First Quarter 2023 Financial Results

- As of March 31, 2023, Aura had cash and cash equivalents and marketable securities totaling \$173.5 million. Aura believes its current cash and cash equivalents and marketable securities are sufficient to fund its operations into 2025.
 - Research and development expenses increased to \$14.4 million for the three months ended March 31, 2023 from \$8.3 million for the three months ended March 31, 2022, primarily due to ongoing clinical costs associated with the progression of our Phase 2 study and CRO costs associated with the start of our global Phase 3 trial, manufacturing and development costs for bel-sar, and higher personnel expenses from growing headcount.
 - General and administrative expenses increased to \$5.0 million for the three months ended March 31, 2023 from \$4.5 million for the three months ended March 31, 2022. General and administrative expenses include \$1.1 million and \$1.0 million of stock-based compensation for the three months ended March 31, 2023 and 2022, respectively. The increase was primarily driven by personnel expenses, as well as increases in general corporate expenses related to growth of the Company.
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- Net loss for the three months ended March 31, 2023 was \$17.5 million compared to \$12.8 million for the three months ended March 31, 2022.

About Aura Biosciences

Aura Biosciences, Inc. is a clinical-stage biotechnology company developing virus-like drug conjugates (VDCs), a novel class of therapies, for the treatment of multiple oncology indications. Aura's lead VDC candidate, belzupacap sarotalocan (bel-sar; AU-011), consists of a virus-like particle conjugated with an anti-cancer agent. Bel-sar is designed to selectively target and destroy cancer cells and activate the immune system with the potential to create long-lasting, anti-tumor immunity. Bel-sar is currently in development for ocular cancers, and Aura has initiated activities for the global Phase 3 trial evaluating first-line treatment of early-stage choroidal melanoma, a vision- and life-threatening form of eye cancer where standard of care with radiotherapy leaves patients with severe comorbidities, including major vision loss. Aura plans to pursue development of bel-sar across its ocular oncology franchise including for the treatment of patients with choroidal metastasis. In addition, leveraging Aura's technology platform, Aura is developing bel-sar more broadly across multiple cancers, including in patients with non-muscle invasive bladder cancer. Aura is headquartered in Boston, MA.

For more information, visit aurabiosciences.com, or follow us on [Twitter](#) and [LinkedIn](#).

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, and other federal securities laws. Any statements that are not statements of historical fact may be deemed to be forward looking statements. Words such as "may," "will," "could," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "projects," "seeks," "endeavor," "potential," "continue" or the negative of such words or other similar expressions that can be used to identify forward-looking statements. These forward looking statements include express or implied statements regarding Aura's future expectations, plans and prospects, including, without limitation, statements regarding the therapeutic potential of bel-sar for the treatment of cancers including choroidal melanoma, non-muscle invasive bladder cancer and choroidal metastasis; any express or implied statements regarding the Company's expectations for the Phase 2 and Phase 3 clinical trials of bel-sar for early-stage choroidal melanoma and the Phase 1 trial of bel-sar for non-muscle invasive bladder cancer; the potential approvability of bel-sar; the Phase 2 trial of bel-sar for choroidal metastasis; Aura's expectations regarding the estimated patient populations and related market opportunities for bel-sar; and Aura's expectations regarding cash runway.

The forward-looking statements in this press release are neither promises nor guarantees, and investors should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties, and other factors, many of which are beyond Aura's control and which could cause actual results to differ materially from those expressed or implied by these forward-looking statements, including, without limitation, uncertainties inherent in clinical trials and in the availability and timing of data from ongoing clinical trials; the expected timing for submissions for regulatory approval or review by governmental authorities; the risk that the results of Aura's clinical trials may not be predictive of future results in connection with future clinical trials; the risk that interim data from ongoing clinical trials may not be predictive of final data from completed clinical trials; the risk that governmental authorities may disagree with Aura's clinical trial designs, even after governmental authorities have reviewed and commented on such clinical trial designs; whether Aura will receive regulatory approvals to conduct trials or to market products; whether Aura's cash resources will be sufficient to fund its foreseeable and unforeseeable operating expenses and capital expenditure requirements; risks, assumptions and uncertainties regarding the impact of the COVID-19 pandemic on Aura's business, operations, strategy, goals and anticipated timelines; Aura's ongoing and planned pre-clinical activities; and Aura's ability to initiate, enroll, conduct or complete ongoing and planned clinical trials. These risks, uncertainties, and other factors include those risks and uncertainties described under the heading "Risk Factors" in Aura's most recent Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission (SEC) and in subsequent filings made by Aura with the SEC, which are available on the SEC's website at www.sec.gov. Except as required by law, Aura disclaims any intention or responsibility for updating or revising any forward-looking statements contained in this press release in the event of new information, future developments or otherwise. These forward-looking statements are based on Aura's current expectations and speak only as of the date hereof and no representations or warranties (express or implied) are made about the accuracy of any such forward-looking statements.

Investor and Media Contact:

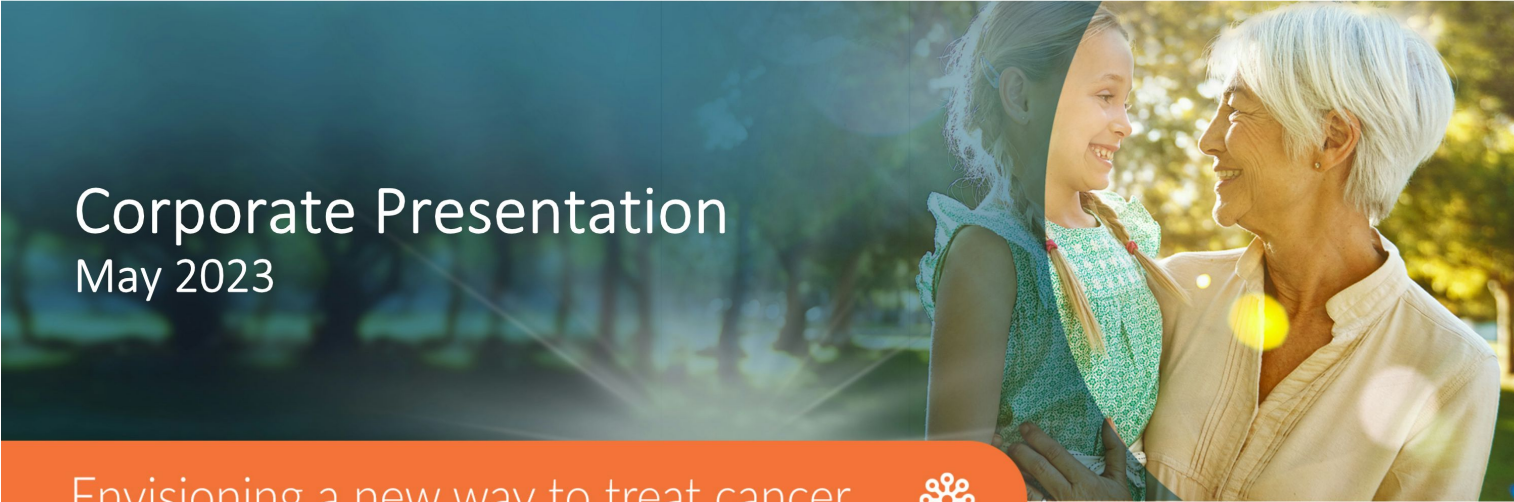
Alex Dasalla
Head of Investor Relations and Corporate Communications
adasalla@aurabiosciences.com

Aura Biosciences, Inc.
Condensed Consolidated Statement of Operations and Comprehensive Loss
(in thousands, except share and per share amounts)

	Three Months Ended March 31,	
	2023	2022
Operating Expenses:		
Research and development	\$ 14,405	\$ 8,276
General and administrative	5,039	4,535
Total operating expenses	19,444	12,811
Total operating loss	(19,444)	(12,811)
Other income (expense):		
Interest income, including amortization and accretion income	1,991	25
Loss on disposal of assets	0	(5)
Other income (expense)	(13)	(44)
Total other income (expense)	1,978	(24)
Net loss	(17,466)	(12,835)
Net loss per common share—basic and diluted	(0.46)	(0.44)
Weighted average common stock outstanding—basic and diluted	37,784,282	29,213,632
Comprehensive loss:		
Net loss	\$ (17,466)	\$ (12,835)
Other comprehensive items:		
Unrealized gain (loss) on marketable securities	\$ 27	\$ (5)
Total other comprehensive gain (loss)	27	(5)
Total comprehensive loss	\$ (17,439)	\$ (12,840)

Aura Biosciences, Inc.
Condensed Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	March 31, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	\$ 38,492	\$ 121,582
Marketable securities	135,030	67,229
Restricted cash and deposits	20	20
Prepaid expenses and other current assets	5,579	7,871
Total current assets	179,121	196,702
Restricted cash and deposits, net of current portion	768	768
Right of use assets - operating lease	20,340	20,671
Other long-term assets	623	423
Property and equipment, net	5,167	5,371
Total Assets	\$ 206,019	\$ 223,935
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	1,055	2,921
Short-term operating lease liability	2,985	2,963
Accrued expenses and other current liabilities	4,067	4,573
Total current liabilities	8,107	10,457
Long-term operating lease liability	17,654	17,895
Total Liabilities	25,761	28,352
Commitments and Contingencies		
Stockholders' Equity:		
Common stock, \$0.00001 par value, 150,000,000 authorized at March 31, 2023 and December 31, 2022, and 37,800,102 and 37,771,918 shares issued and outstanding at March 31, 2023 and December 31, 2022, respectively	—	—
Additional paid-in capital	408,669	406,555
Accumulated deficit	(228,366)	(210,900)
Accumulated other comprehensive loss	(45)	(72)
Total Stockholders' Equity	180,258	195,583
Total Liabilities and Stockholders' Equity	\$ 206,019	\$ 223,935



Corporate Presentation
May 2023

Envisioning a new way to treat cancer



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 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; the effect of the COVID-19 pandemic, including mitigation efforts and economic effects, on any of the foregoing or other aspects of our business operations, including but not limited to our preclinical studies and clinical trials and any future studies or trials; our ability to commercialize our products, if approved; and the implementation of our business model, and 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, as well as discussions of potential risks, uncertainties, and other important factors in our other subsequent filings with the Securities and Exchange Commission. 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 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.

Aura Biosciences Highlights

Novel Platform to Treat Multiple Solid Tumors

- Developing virus-like drug conjugates (VDCs) that bind to tumor specific HSPGs* to deliver a therapeutic payload
- Targeting multiple solid tumor indications including ocular and bladder cancers

Ocular Oncology Franchise

- Multi-billion-dollar addressable market opportunity
- Invasive standard of care that may lead to blindness and loss of eye
- Clinical proof of concept with two routes of administration
- **Choroidal Melanoma:** Initiated activities for the global Phase 3 trial
- **Choroidal Metastasis:** Open IND and plan to initiate Phase 2 trial 2H 2023

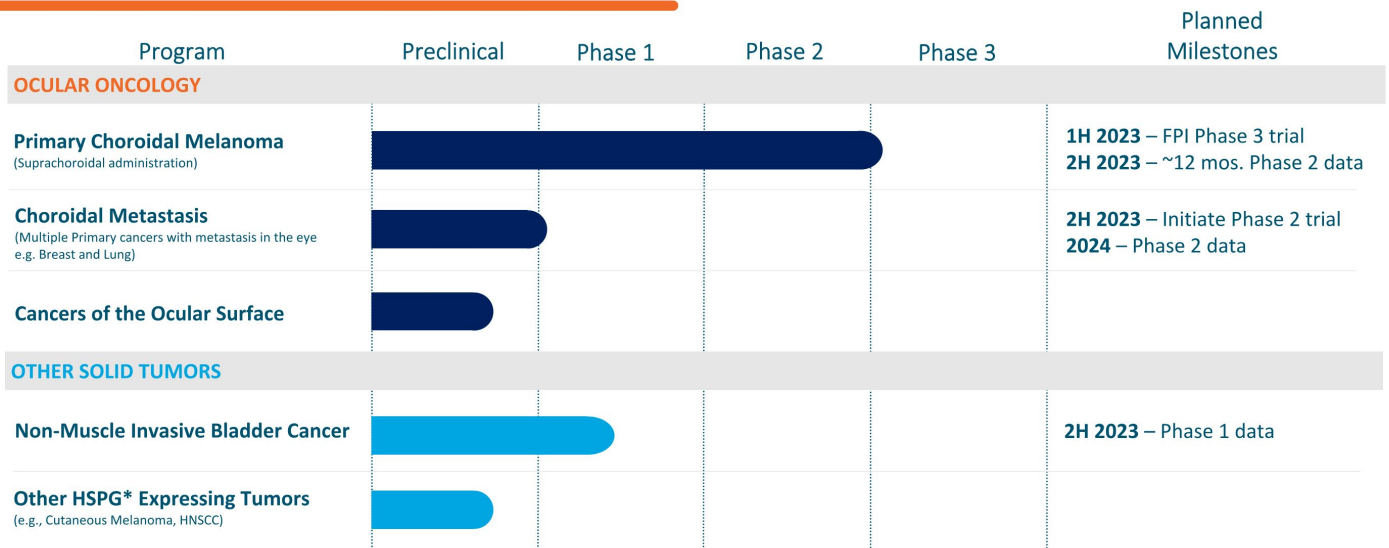
Urologic Oncology Franchise

- Durable complete responses and improved survival in *in vivo* bladder cancer models
- Synergy with checkpoint inhibitors (durable immunologic memory)
- Ongoing enrollment of Phase 1 trial

Strong Cash Position

- Cash runway to fund operations into 2H 2025

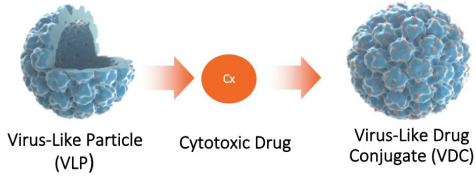
Pipeline Targeting Life-Threatening Cancers with High Unmet Needs



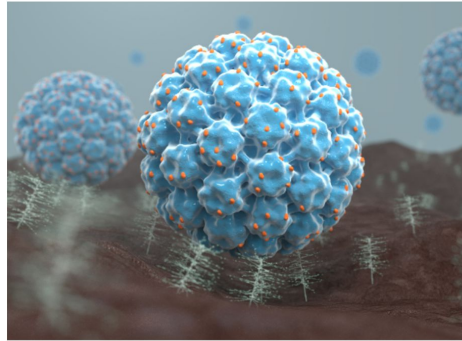
Global Commercial Rights for All Product Candidate Indications

Targeted Oncology Platform: Virus-Like Drug Conjugates (VDCs)

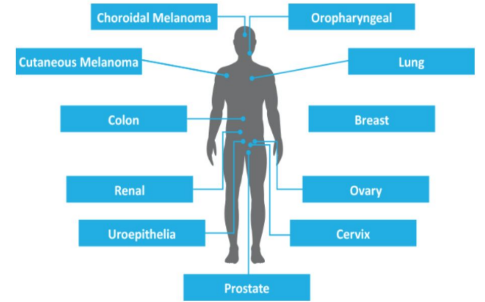
Virus-Like Particle Conjugated to a Cytotoxic Payload



Selective Binding to Tumor Associated HSPGs*

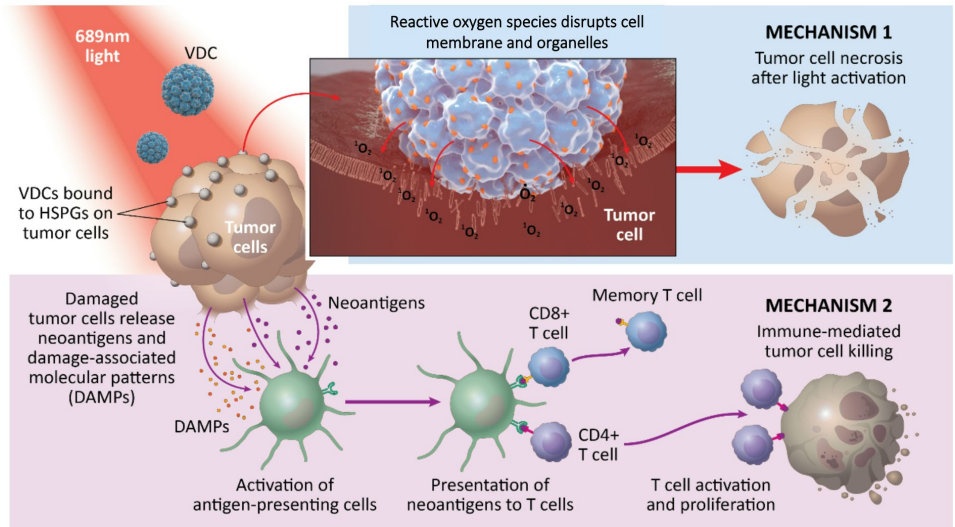
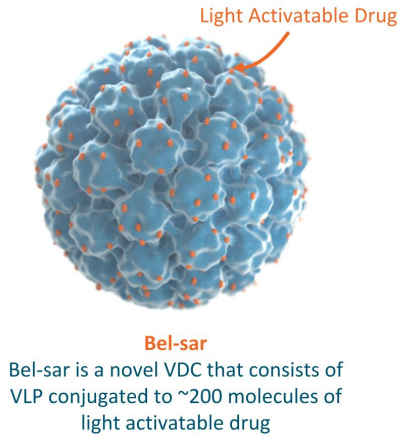


Potential Treatment of Multiple Solid Tumors



Potential Key Differentiation: Potency, Multivalent Binding and Selectivity

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



Potential Key Differentiation: Agnostic to Genetic Mutations, Less Susceptible to Resistance Mechanisms, Long Term Anti-tumor Immunity

Ocular Oncology Franchise



Bel-sar
INN: *belzupacap sarotalocan*



Target Indications:

- Early-Stage Choroidal Melanoma
- Choroidal Metastasis
- Other Ocular Cancers

Primary Choroidal Melanoma – High Unmet Medical Need with No Drugs Approved



Most common primary intraocular cancer in adults

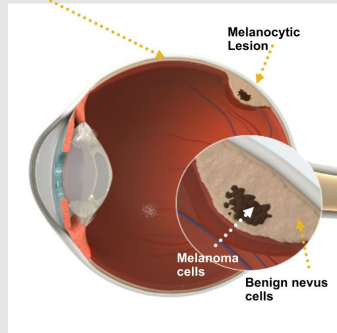


Impacts **11,000** patients in US/Europe per year

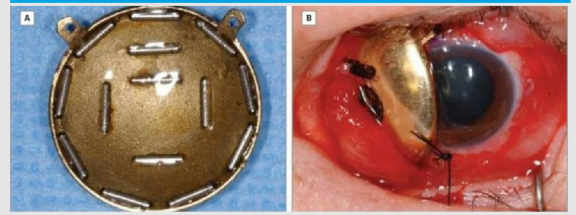


~80% patients diagnosed with early-stage disease

The choroid is the part of the uvea that is behind the retina



Standard of Care is Radiotherapy or Enucleation

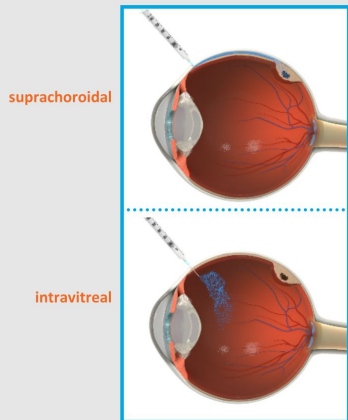


Blindness, Eye Loss, and Disfiguration

Choroidal Melanoma is a Rare and Life-Threatening Ocular Cancer

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

Bel-sar is Delivered by Simple Intravitreal or Suprachoroidal Injection



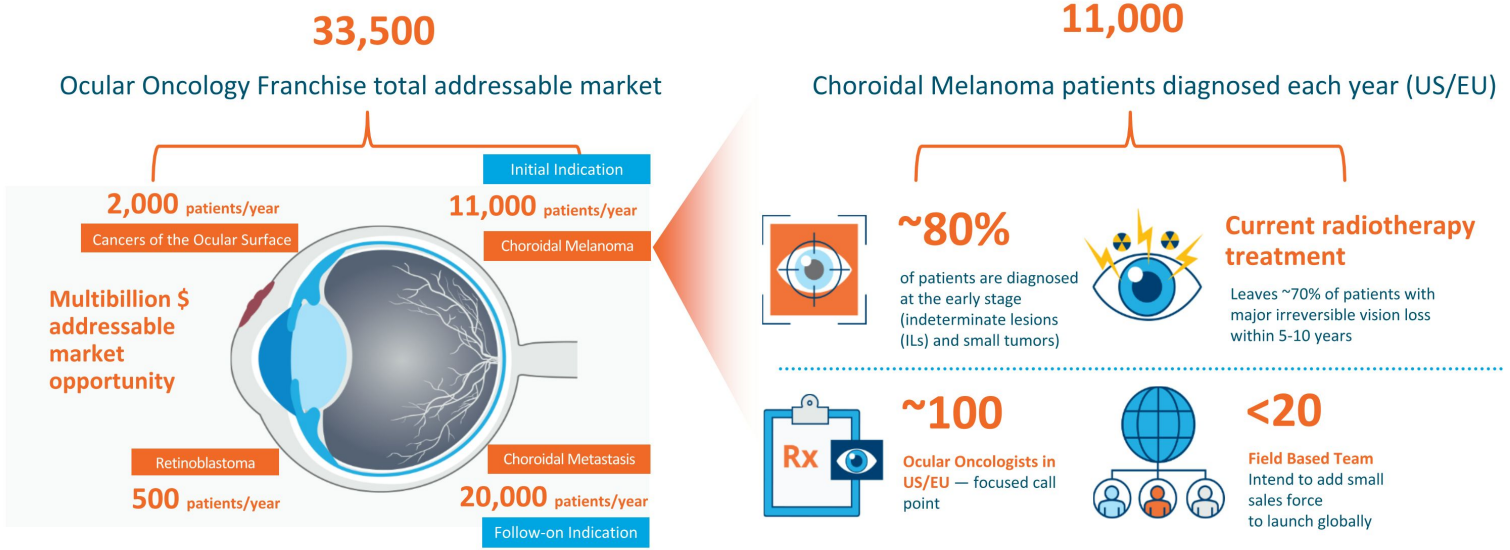
Light Activation with Standard Ophthalmic Laser



Goals of Treatment

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

Ocular Oncology Franchise Represents a Multi-Billion Dollar Addressable Market Opportunity



ClearView & Putnam & Assoc. Epidemiology Analysis Choroidal Melanoma and Choroidal Metastasis
 American Cancer Society- Retinoblastoma statistics
 Batsi et al Cornea 2003 Ocular Surface squamous neoplasia: a review

No Drugs Approved and No Known Competition in Early-Stage Disease

11,000 patients with Choroidal Melanoma diagnosed each year in US/EU



80%
~ 9000 patients Diagnosed with Early-Stage Disease: Indeterminate Lesions and Small Melanomas

Initial Path to Market

Watch & Wait

Plaque Brachytherapy
Proton Beam

Plaque Brachytherapy
Proton Beam

Enucleation

Chemotherapy

Aura's Bel-Sar in Phase 3 development as the potential to be the first approved first line treatment in **Primary** Choroidal Melanoma

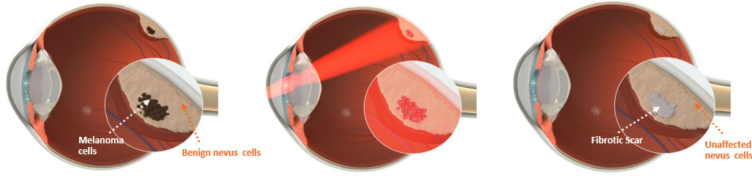
Aura's Bel-Sar has the potential to expand into medium

Ideaya's Darovasertib Phase 2 development for **Metastatic** and **(Neo)/adjuvant** Uveal Melanoma

Immunocore's Kimmtrack approved to treat patients with **Metastatic** Uveal Melanoma

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

Similar to Current Clinical Practice with Radiotherapy - Local Tumor Control is Equivalent 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

Key Endpoints Aligned with Clinical Practice and FDA

Endpoint	Endpoint Definitions
Tumor Progression	Growth in Tumor Height $\geq 0.5\text{mm}$ or $\geq 1.5\text{ mm}$ in Largest Basal Diameter (LBD)
Visual Acuity Failure	Decrease from baseline: ≥ 15 letters
Tumor Thickness Growth Rate	Change in tumor height over time

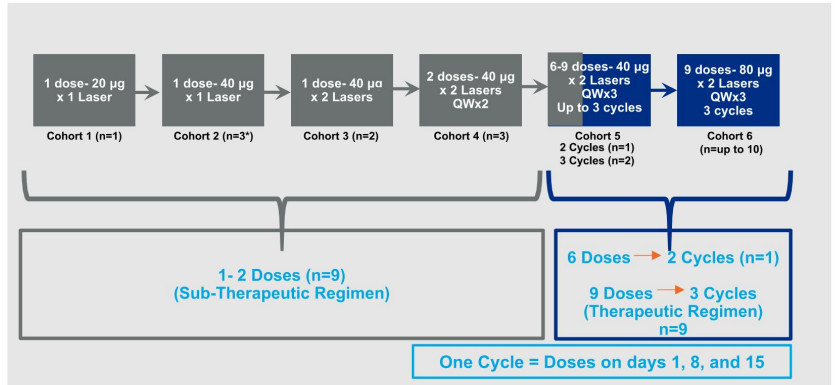
Objective of Treatment is to Obtain a Local Cure with Visual Acuity Preservation

Ph 2 Trial - Evaluating Suprachoroidal Administration to Determine Optimal Administration Route

Enrollment Criteria

- Representative of Early-Stage Disease:
 - Indeterminate lesions and small choroidal melanomas
- Enrichment Strategy with active growth:
 - Tumor thickness ≥ 0.5 mm and ≤ 2.5 mm
 - LBD ≤ 10 mm
 - Active tumor growth (≥ 0.3 mm) within 2 years of screening
 - Same criteria as the planned Phase 3

Ph2 SC Trial Design – Enrollment Complete

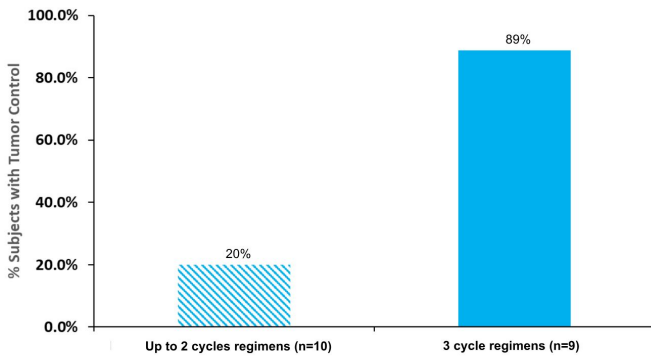


Goal: To Determine Safety, Optimal Dose and Therapeutic Regimen with Suprachoroidal Administration

*2 subjects were planned; third subject was additionally enrolled due to dose error in 1 subject
 ClinicalTrials.gov Identifier: NCT04417530 ; AU-011-202
 Interim Data- January 10, 2023; Last two subjects enrolled after data cut not included in dataset
 SC – Suprachoroidal; LBD – Largest Basal Diameter

Ph 2 Interim Tumor Control Rates Demonstrated a Dose Response

Dose Response: Lower Regimens vs. 3 Cycle Regimens



Tumor Progression: change from baseline in thickness ≥ 0.5 mm; or in LBD ≥ 1.5 mm confirmed by at least one repeat assessment

Interim Data- January 10, 2023; Last two subjects enrolled after data cut not included in dataset

Average 8-10 Months of Follow Up

Populations	Total Patients (n)	Tumor Control Rate	Average Follow-up (months)
All Doses/Regimens			
All Treated Patients	20	55% (11/20)	9
Lower Doses/Regimens			
Up to 2 Cycles (20 μ g-40 μ g)	10	20% (2/10)	10
Highest Doses/Regimens**			
3 Cycles (n=9)	9	89% (8/9)	8
40 μ g (n=2)/80 μ g (n=7)			

*One subject in C6 who discontinued after 1 cycle due to unrelated SAEs is not included

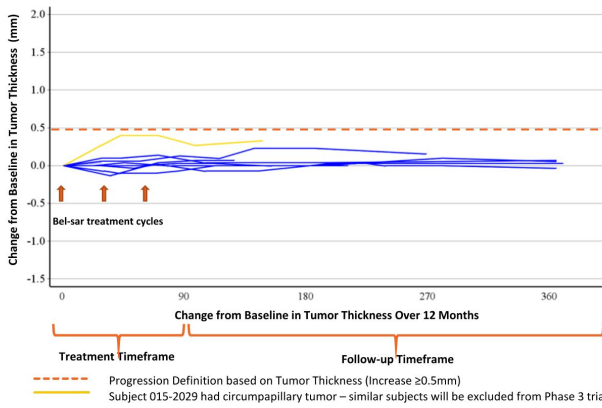
**Assigned regimen of 3 cycles (Cohort 6) and Cohort 5 subjects who received 3 cycles, each cycle comprised of 3 once/week treatments of 40 μ g x 2 Laser or 80 μ g x 2 Laser

Lower dose regimens (n=10) include cohorts 1-4 and 1 patient in Cohort 5 that received 2 cycles

Dose Response Observed with Interim Tumor Control Rates Demonstrated Meaningful Clinical Benefit

Ph 2 Interim Analysis Demonstrated Tumor Control Rate 89%-100%

89%-100% Tumor Control Rate: Active Growth and Therapeutic Regimen (3 cycles)



Tumor Progression: change from baseline in thickness ≥ 0.5 mm; or in LBD ≥ 1.5 mm confirmed by at least one repeat assessment; Interim Data- January 10, 2023; Last two subjects enrolled after data cut not included in dataset ; post-SOC data not included

Average 8-9 Months of Follow Up

Populations	Total Patients (n)	Tumor Control Rate	Average Follow-up (months)
Highest Doses/Regimens			
3 Cycles (n=9)	9	89% (8/9)	8
40 μ g (n=2)/80 μ g (n=7)			
Highest Doses/Regimens - Planned Phase 3[^]			
3 Cycles (n=8)	8	100% (8/8)	9
40 μ g (n=2)/80 μ g (n=6)			

One subject in C6 who discontinued after 1 cycle due to unrelated SAEs is not included
 Assigned regimen of 3 cycles (Cohort 6) and Cohort 5 subjects who received 3 cycles, each cycle comprised of 3 once/week treatments of 40 μ g x 2 Laser or 80 μ g x 2 Laser
[^] One subject in C6 with circumpapillary tumor not included (similar subjects not planned in Phase 3 trial)

Ph 2 Interim Analysis Demonstrated Tumor Control Rate of 100% in Planned Ph 3 Population[^]

Ph 2 Interim Analysis Demonstrated Visual Acuity Preservation ~90%

Vision Preservation Rates					
Populations	Total Patients (n)	Vision Failures (n)	Vision Preservation Rate	Mean Change from Baseline at Last Visit (letters)	Average Follow-up (months)
All Dose Cohorts					
All Treated Patients	20	2	90%	-3.7	9
Lower Doses/Regimens					
Up to 2 cycles (20µg-40µg)	10	1	90%	-3.2	10
Highest Doses/Regimens**					
3 Cycles (40µg-80µg) 40µg (n=2)/80µg (n=7)	9	1	89%	-4.8	8
Highest Doses/Regimens - Planned Phase 3**					
3 Cycles (40µg-80µg) [^] 40µg (n=2)/80µg (n=6)	8	1	88%	-5.3	9

*One subject in C6 who discontinued after 1 cycle due to unrelated SAEs is not included

**Assigned regimen of 3 cycles (Cohort 6) and Cohort 5 subjects who received 3 cycles, each cycle comprised of 3 once/week treatments of 40µg x 2 Laser or 80µg x 2 Laser

Vision Failure confirmed loss ≥15 letters at ≥Week 39; post-SOC data not included

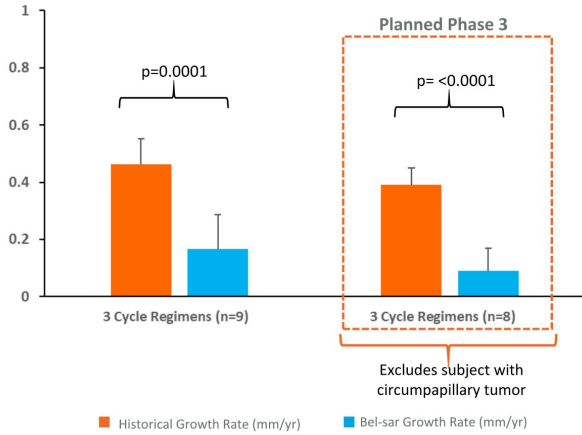
[^]7 out of 8 subjects in this subgroup were high-risk for vision loss (tumor edge ≤ 3 mm from the foveola or optic disc)

Interim Data- January 10, 2023 ; Last two subjects enrolled after data cut not included in dataset

Interim Data Demonstrated High Vision Preservation Rates Across All Groups Including Patients at High Risk for Vision Loss

Ph 2 Interim Data Demonstrated Statistically Significant Tumor Growth Rate Reduction

Statistically Significant Change in Tumor Growth Rate (mm/yr): Therapeutic Regimen (3 cycles)



Change in Tumor Growth After Treatment with Bel-sar

	n	Historical Growth Rate (mm/yr)	AU-011 Growth Rate (mm/yr)	Growth Rate Reduction (mm/yr)	p-value	Average Follow up (months)
Highest Doses/Regimens						
3 Cycles (40µg-80µg)	9	0.454	0.169	-0.285	0.0001	8
40µg (n=2)/80µg (n=7)						
Highest Doses/Regimens - Planned Phase 3[^]						
3 Cycles (40µg-80µg)	8	0.382	0.093	-0.289	<math>< 0.0001</math>	9
40µg (n=2)/80µg (n=6)						

Tumor thickness growth rates/ slopes estimated using MMRM (random intercept and slope model for Hx and Study periods)

One subject in C6 who discontinued after 1 cycle due to unrelated SAEs is not included

Assigned regimen of 3 cycles (Cohort 6) and Cohort 5 subjects who received 3 cycles, each cycle comprised of 3 once/week treatments of 40µg x 2 Laser or 80µg x 2 Laser

[^]One subject in C6 with circumpapillary tumor not included (similar subjects not planned in Phase 3 trial)

Interim Data Showed Growth Arrest in Planned Phase 3 Population with a p-value of <math>< 0.0001</math>

Ph 2 Ongoing Tolerability Evaluation Continues to Be Favorable

No Grade 3 AEs and Majority of AEs Were Transient and Resolved Without Clinical Sequelae

Ongoing Phase 2 Safety Outcomes with SC Administration				
All Treated Subjects (n=20) Drug/Laser Related Adverse Events ≥10% Subjects	Grade I	Grade II	Grade III	Total
Anterior Chamber Cell/ Inflammation	25%	0	0	25%
Conjunctival Hyperemia	15%	0	0	15%
Eye Pain	10%	5%	0	15%
Punctate Keratitis	10%	0	0	10%

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

Interim Data- January 10, 2023; Last two subjects enrolled after data cut not included in dataset

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%	~10%

Serious Adverse Event	Radiotherapy*	Bel-Sar [†]
Scleral Necrosis	0-5%	0%
Enucleation/Eye Loss	10-15%	0%
Vision Loss in High-Risk Subjects** (≥30 letters)	~90%	0% ^{††}

*Cross-trial comparison of Radiotherapy and AU-011-202

[†]Related to bel-sar or laser

**75% (15/20) of patients in Ph2 SC trial were at high risk for vision loss

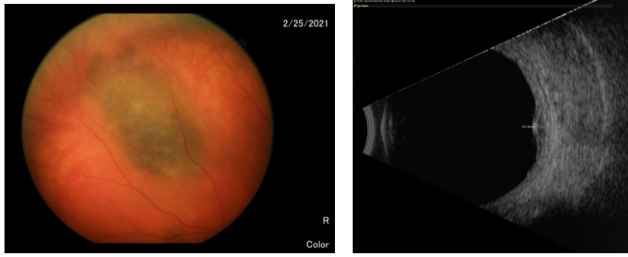
Tolerability Profile Supports Indication as a First Line Treatment in Early-Stage Disease

*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

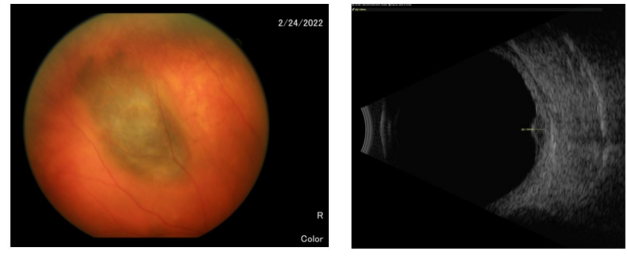
^{††}High-Risk Subjects are those with tumors <3mm to fovea or optic nerve

Bel-Sar – Belzupacap Sarotalocan

Durable Response to Treatment with Tumor Control & Vision Preservation at 1 Year, with 3 Cycles



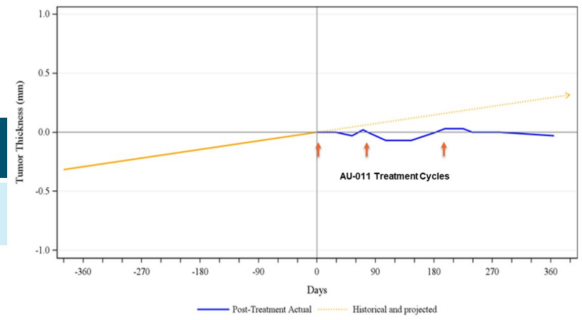
Photograph and ultrasound at baseline
 TT: 1.50 mm, LBD: 8.92 mm (IRC reads)



Photograph and ultrasound at 12 months
 TT: 1.47 mm, LBD: 8.55 mm (IRC reads)

Cohort 5 Subject with Documented Tumor Growth
 Tumor location: Superotemporal

	Baseline	Week 4	Week 8	Week 12	Week 26	Week 39	Week 52
BCVA (letter score)	91	92	92	89	89	90	89

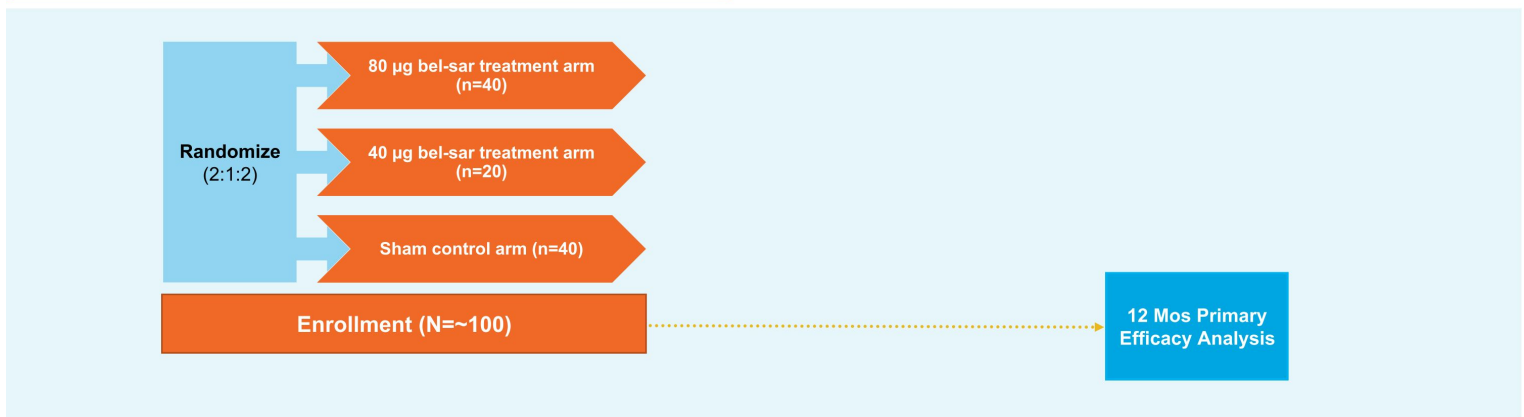


Randomized Controlled Global Phase 3 Trial



Global Phase 3 Trial Design Using Suprachoroidal Administration

Fast Track and Orphan Designations



Primary Endpoint

- Composite time to event analysis:
 - Tumor progression or visual acuity failure between Intervention Group (High Dose) and Sham Group

Key Secondary Endpoints

- Time to Tumor Progression
- Tumor Growth Rate over 52 weeks

Conservative Assumptions Designed to Optimize Probability of Success

Clinical Endpoints to Support Approval in Alignment with Regulatory Agencies

	Endpoint	Endpoint Assumptions	Endpoint Definitions
Composite Endpoint	Tumor Progression	Bel-sar: 35% Tumor Progression Sham: 85% Tumor Progression	Growth in Tumor Height ≥ 0.5 mm or ≥ 1.5 mm in Largest Basal Diameter
	Vision Acuity Failure	Bel-sar: 15% VA Failure Sham: 2% VA Failure	Decrease from baseline: ≥ 15 letters
	Tumor Thickness Growth Rate	Bel-sar vs Sham : -0.28mm/year reduction	Change in tumor height over time

Conservative Assumptions Provide >90% Power to Support Potential for a Single Global Phase 3 Trial

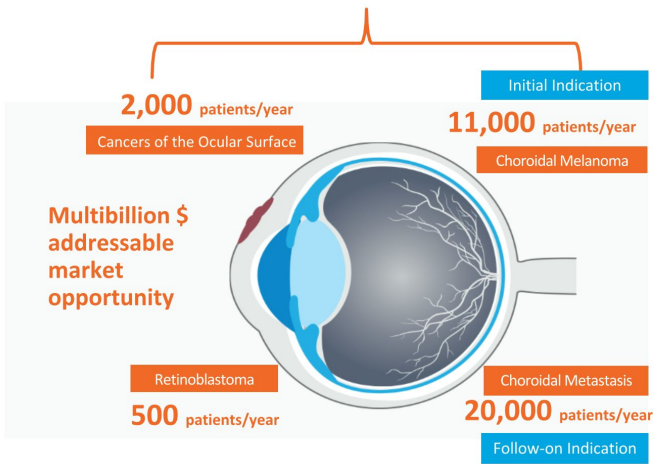
Choroidal Metastasis



Ocular Oncology Franchise Represents a Multi-Billion Dollar Addressable Market Opportunity

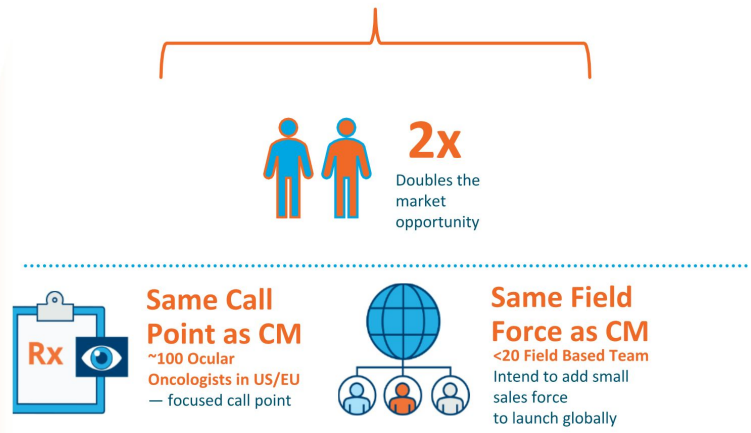
33,500

Ocular Oncology Franchise total addressable market



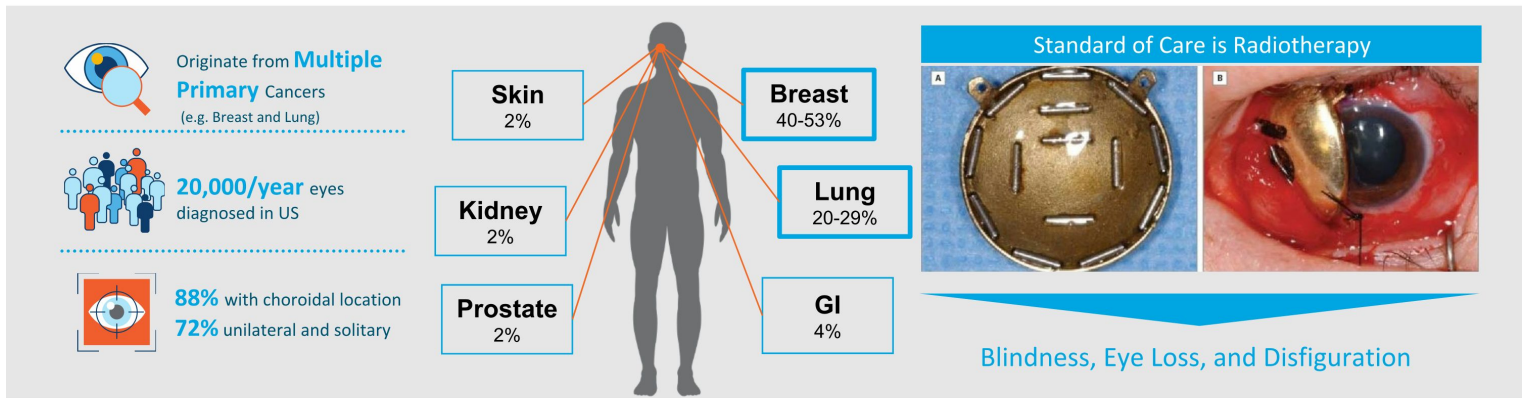
20,000

Choroidal Metastasis patients diagnosed each year (US/EU)



ClearView & Putnam & Assoc. Epidemiology Analysis Choroidal Melanoma and Choroidal Metastasis
 American Cancer Society- Retinoblastoma statistics
 Batsi et al Cornea 2003 Ocular Surface squamous neoplasia: a review

Choroidal Metastasis is a High Unmet Medical Need

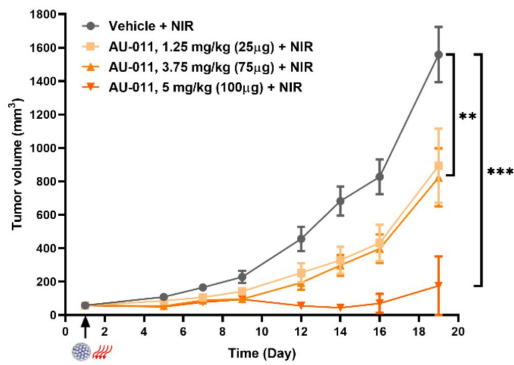


Choroidal Metastasis Cause Decreased Vision and Decreased Quality of Life in Patients Fighting Metastatic Cancer

Bel-sar has Demonstrated Dose-Dependent Activity for Cancer Types Known to Metastasize to the Choroid

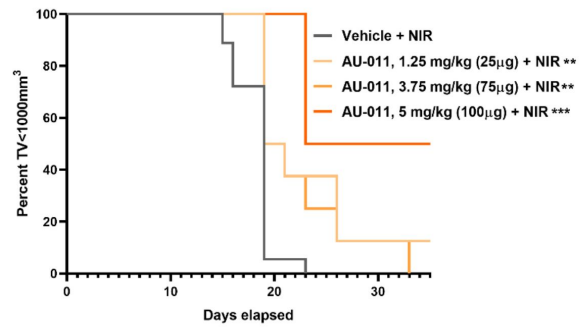
Breast Cancer In-Vivo (Syngeneic Mouse Model, EMT-6)

Tumor Regression



Tumor cells were implanted subcutaneously. AU-011 treatment was initiated when tumors reached approximately 50 mm³. Treatment consisted of a single intravenous administration of AU-011 followed 12 hours later by light activation (400 mW/cm², 58 J/cm²). Tumor volumes were measured over time (N=8-12)

Prolonged Survival



**Single Administration of Bel-sar Showed Tumor Regression and Prolonged Survival in a Dose-Dependent Fashion
Data Supportive of Moving into Phase 2 Trial 2H 2023**

Urologic Oncology



Bel-sar
INN: belzupacap sarotalocan



Target Indications:
Non-Muscle Invasive Bladder Cancer

Bel-Sar is a Clinical Asset with a Multibillion Dollar Market Opportunity in Non-Muscle Invasive Bladder Cancer

NMIBC is High Unmet Need

- High Incidence globally >500,000 patients/year
- Rate of recurrence is high

Bel-Sar's MoA Well Suited to NMIBC

- Strong precedent for immune-activators in NMIBC (BCG)
- Bladder tumors physically accessible via cystoscope (injection, laser)

Robust Nonclinical Data Package

- Durable CRs and improved survival in *in vivo* bladder cancer models
- Synergy with checkpoint inhibitors (durable immunologic memory)

Read Through from Ocular Clinical Proof of Concept

- Two clinical trials demonstrate robust efficacy in Ocular Oncology
- Initiating global Ph 3 study in choroidal melanoma

Phase 1 Study Ongoing

- Initial data available in 2H 2023

NMIBC is a High Unmet Need with High Recurrence Rate



573,000

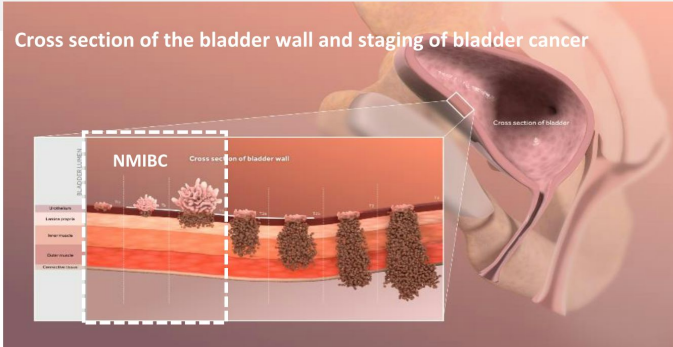
New cases NMIBC/year globally



81,000

New cases/year in the US

Cross section of the bladder wall and staging of bladder cancer

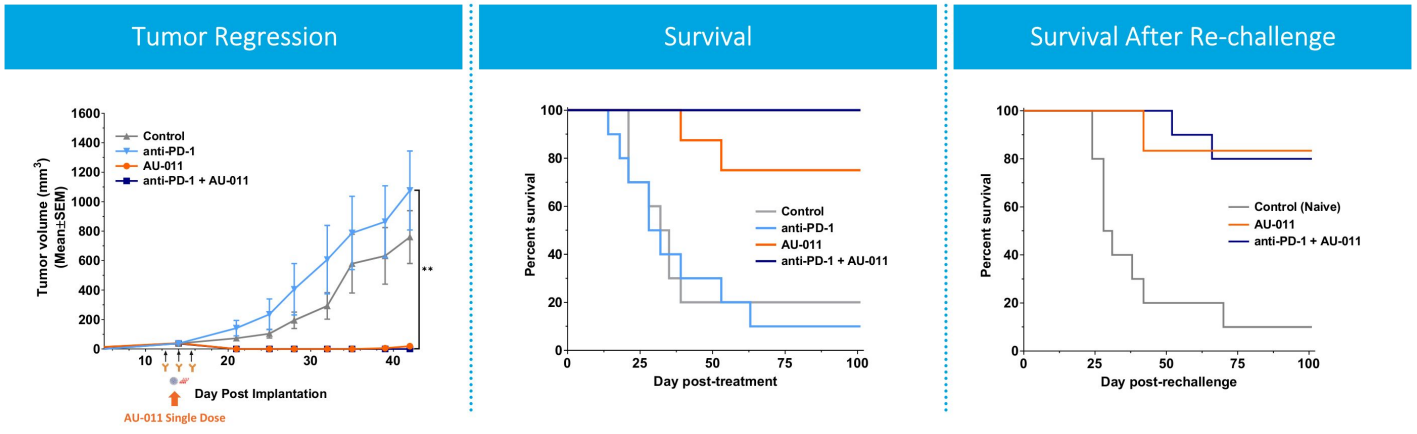


Risk Stratification	Treatment Guidelines	Problem
Low Risk (40%)	Surveillance or TURBT + Chemo	Recurrence after TURBT
Intermediate Risk (30%)	Mix of TURBT + Chemo / BCG	Failure of BCG/Chemo ~40%
High Risk (30%)	Mix of Chemo / BCG	Progression with no alternative option but Cystectomy

Mechanism of Action Supports Bel-sar Opportunity as Potential Front-Line Treatment Following Initial Diagnosis and/or BCG Refractory Disease

Durable CRs with Single Administration of Bel-sar in Bladder Cancer Model

Treatment of Tumor Caused Anti-Tumor Immune Response and Prevented Tumor Growth After Re-Challenge



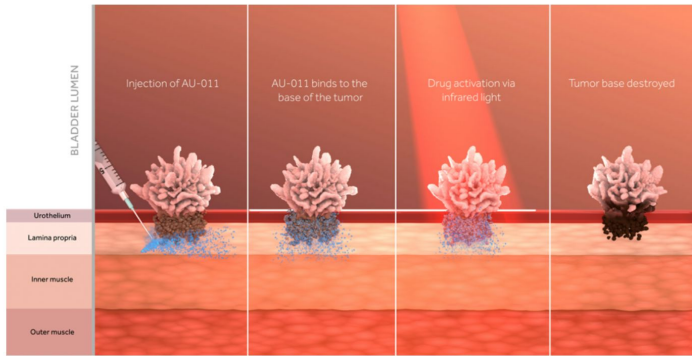
Syngeneic Mouse Tumor Bladder Model (MB49 Model in C57BL/6 Mice) (N=8-10/group)

Kines et al. Can Immunol Res 9(6):693-706, 2021

Data Demonstrate Robust Nonclinical Activity Supporting Development of Bel-sar as Single Agent and in Combination with Checkpoint Inhibitors

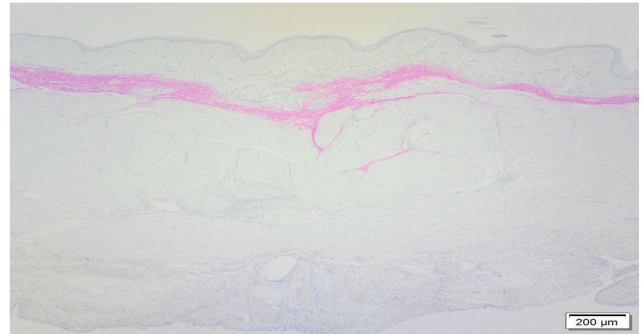
Novel Approach using Intra-mural Administration

Intra-mural Administration



Bel-sar will be administered in the lamina propria close to the base of the tumor

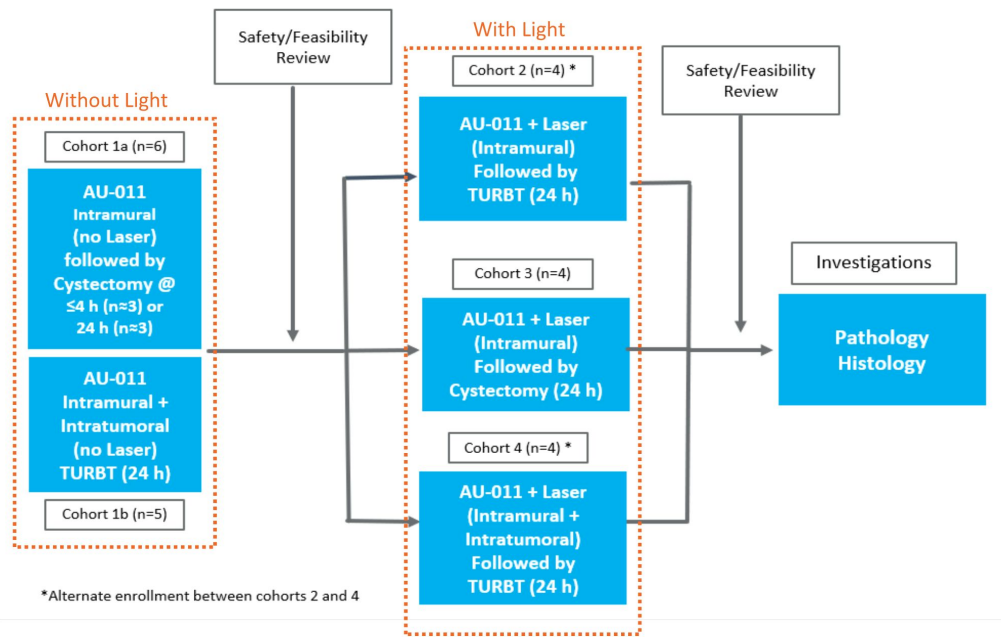
Distribution Into the Mucosal Layer Into the Bladder Wall



3 Hour Post AU-011 Injection (Dog tox study):
Bel-Sar positive staining (pink) extends laterally at the junction between the submucosa and superficial muscularis of the bladder

Ongoing Phase 1 Trial Designed to Establish Safety, and Optimize Administration in Intermediate and High Risk NMIBC Patients

Ongoing Ph 1 Trial Evaluating Bel-sar Distribution, Local Necrosis and Evidence of Immune Activation



Strategy & Key
Milestones



Aura Biosciences Investment Highlights

Technology Platform

Virus-like Drug Conjugates

- Novel class of cancer therapies - tumor specific cytotoxicity combined with immune activation
- Targeting multiple solid tumor indications initially focusing on ocular and urologic cancers

Clinical Data Highlights

Ocular Oncology Franchise:

- Positive data in completed Phase 1b/2 trial (IVT)
- Positive interim data in ongoing Phase 2 trial (SC)
- Initiated activities for the global Phase 3 trial

Urologic Oncology Franchise:

- Enrolling patients in Phase 1 trial in NMIBC

2023 Milestones

Primary Choroidal Melanoma:

- 1H 2023: Dose first patient in global Phase 3 trial
- 2H 2023: Phase 2 SC Data

Choroidal Metastasis:

- 2H 2023: Initiate activities for Phase 2 trial

Non-Muscle Invasive Bladder Cancer:

- 2H 2023: Interim Phase 1 data

Key Highlights

Strong Phase 2 Clinical Proof of Concept

Phase 3 Ready Clinical Asset

Multi-Billion Dollar Market Opportunity

Strong Cash Position

aura

Appendix: Phase 1b/2 IVT Trial



Phase 1b/2 IVT – Key Patient Populations and Objectives

All Patients Enrolled with Clinical Diagnosis of Choroidal Melanoma or Indeterminate Lesions

Safety Evaluation
(All Treated)

Efficacy Evaluation
Therapeutic Regimen (2 Cycles)

All Treated
Patients

Patients Treated
with 2 Cycles

Patients with Active
Growth
Treated with 2 Cycles

n=56

n=20

n=14

Primary Objective: Safety

- Drug or treatment related adverse events (AEs) / serious adverse events (SAEs)

Secondary Objective: Efficacy

- Tumor thickness growth rate before and after treatment
- Local tumor control
- Visual acuity preservation

Enrichment Strategy to Enroll Subjects with Actively Growing Tumors
Provides Important Insight into How Bel-sar May Perform in Phase 3 Trial

Phase 1b/2 – Demonstrated Favorable Tolerability Profile

Majority of AEs Were Transient and Resolved Without Clinical Sequelae

AU-011 Treatment Related AEs ≥15% Subjects (n=56) Final	Grade I/II	Grade III
Vitreous Inflammation	83.9%	7.1%
Anterior Chamber Inflammation	67.9%	3.6%
Increase in Intraocular Pressure	46.4%	0
Pigmentary Changes/Peritumoral	37.5%	0
Keratic Precipitates	23.2%	0
Floaters/Vitreous Opacity	19.7%	1.8%
Decreased visual acuity	19.6%	1.8%
Treatment Related SAEs (n=56)		
Vision Loss (juxtafoveal tumor, n=2)		3.6%

SAE of vision loss in two subjects with tumors close to fovea due to pigmentary changes at the edge of the tumor
SAEs are listed separately in the SAE table Completed Ph 1b/2 IVT trial (AU-011-101)

Adverse Event	Radiotherapy*	Bel-Sar
Surgeries secondary to AEs (e.g., Cataracts)	40%+	~13%
Radiation Retinopathy	40%+	0%
Neovascular Glaucoma	10%	0%
Dry Eye Syndrome	20%	~2%
Strabismus	2%+	0%
Retinal Detachment	1-2%	~2%
Vision Loss (≥15 letters)	~70%	~21%

Serious Adverse Event	Radiotherapy*	Bel-Sar
Scleral Necrosis	0-5%	0%
Enucleation/Eye Loss	10-15%	0%
Vision Loss in High-Risk Subjects** (≥30 letters)	~90%	4.6% ⁺

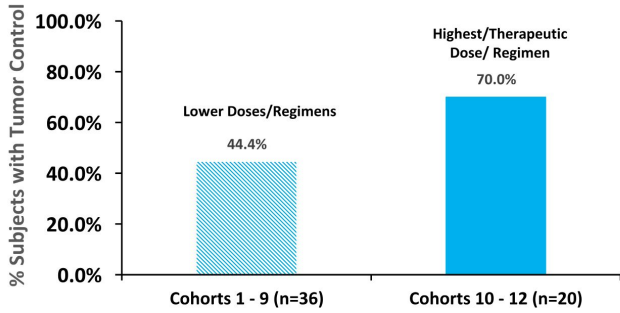
Cross-trial comparison of AU-011-101 and Radiotherapy *77% (43/56) of patients in Ph1b/2 IVT trial were at high risk for vision loss ; 2/43= 4.6%

Tolerability Profile Supports Indication as a First Line Treatment in Early-Stage Disease

*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 Subjects are those with tumors <3mm to fovea or optic nerve
Bel-Sar – Belzupacap Sarotalocan

Phase 1b/2 IVT- 70% Tumor Control Rate and Statistically Significant Growth Rate Reduction

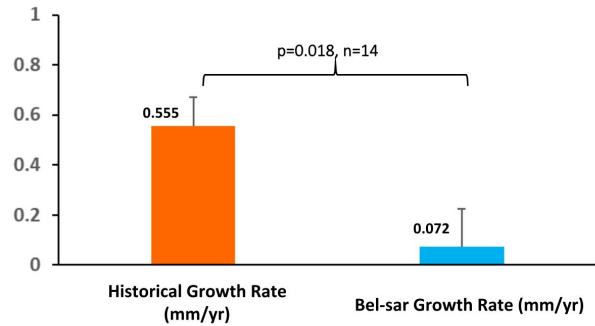
Tumor Control Rates at 12 months



Cohorts 1-9 include single dose escalation cohorts and multiple dose escalation cohorts up to 1 cycle of treatment; Cohorts 10-12 include 2 cycles of treatment at the highest dose

Completed Ph1b/2 IVT trial (AU-011-101)

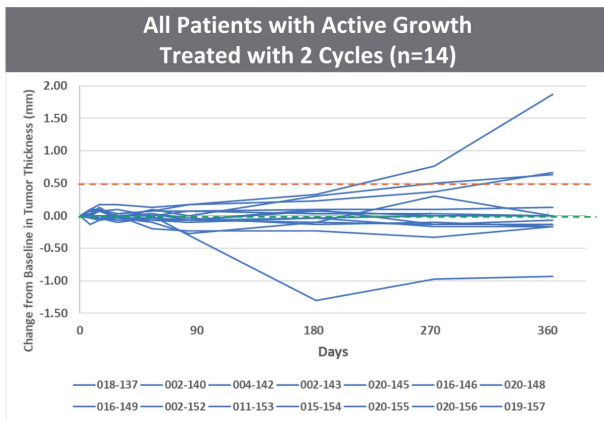
Change in Tumor Growth Rate



- Disease-modifying effect supports tumor is inactive and malignant cells have been targeted by bel-sar

Positive Data in Two Efficacy Endpoints in Patients with Early-Stage Choroidal Melanoma

Phase 1b/2 – 64% Patients with Active Growth Achieved Tumor Control when Treated with Therapeutic Regimen



Change from Baseline in Tumor Thickness Over 12 Months

----- Progression Definition Tumor Height Increase >0.5mm

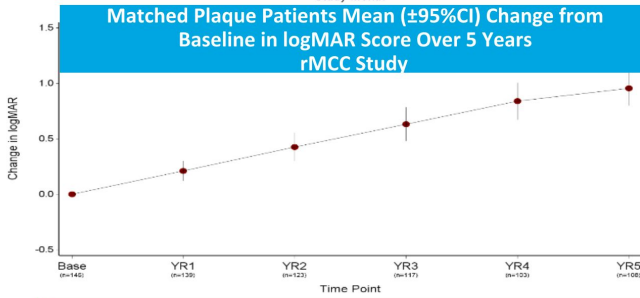
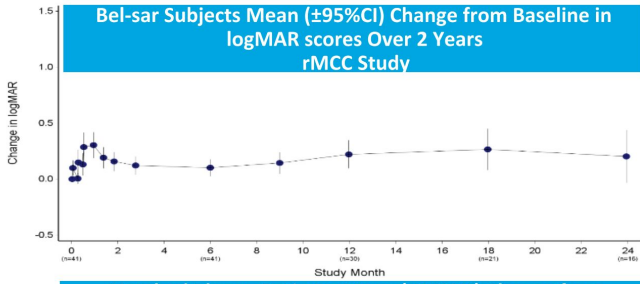
Completed Ph1b/2 IVT trial (AU-011-101)

Tumor Control Rate at 12 months		
Populations	Total Patients (n)	Tumor Control Rate (at 12 months)
Therapeutic Dose/Regimen (2 Cycles)		
All Patients Treated with 2 Cycles	20	70% (14/20)
All Patients with Active Growth Treated with 2 Cycles	14	64% (9/14)

Tumor control failure (progression): Growth from baseline in Tumor Height >0.5mm or LBD >1.0mm due to definitive Tumor Growth (ie, not judged by the Investigator to be due to inflammation/swelling, hemorrhage or pigmentary changes) and not treated with standard of care

We Believe Results Support Bel-sar as First Line Treatment to Help Many Patients Avoid the Need for Radiotherapy

Visual Acuity was Preserved in Majority of Patients with IVT Administration of Bel-sar



Vision Preservation Rates Phase 1b/2 IVT Study Follow up 12 months

Populations	Total Patients (n)	Vision Preservation Rate Failure: Long-term loss ≥ 15 letters
All Dose Cohorts		
All Treated Patients	56	86% (48/56)
Patients with Active Growth - High Risk for Vision Loss	17	76% (13/17)
Therapeutic Regimen (2 cycles)		
All Treated Patients	20	75% (15/20)
Patients with Active Growth	14	71% (10/14)

1 patient had loss ≥ 15 letters at Week 52 visit which recovered within 15 letters at the next visit which was ~3 weeks after standard of care (SOC); all other post-SOC data excluded for all subjects Completed Ph1b/2 IVT trial (AU-011-101)

Vision was Preserved in Majority of Patients Whereas Radiotherapy Often Leads to Irreversible and Long-Term Severe Vision Loss