A Phase 2 Trial of belzupacap sarotalocan (AU-011), a Firstin-class Targeted Therapy for Choroidal Melanoma via Suprachoroidal (SC) Administration

> Ivana Kim, MD, MBA On Behalf of the AU-011 Investigators

> > Ocular Melanoma Center Retina Service Massachusetts Eye and Ear

ISOO 2022

June 2022



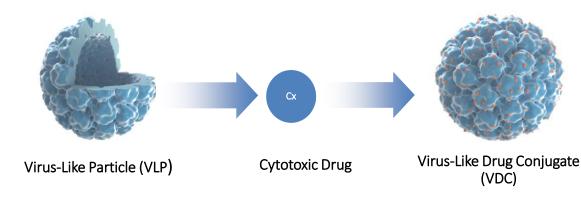
Financial Disclosures

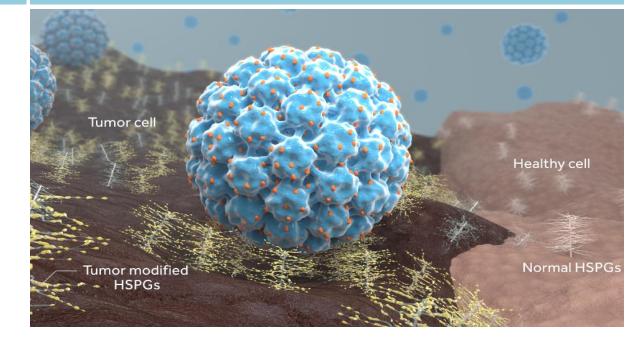
- Allergan (Research support)
- Aura Biosciences (Investigator)
- Biophytis (Consultant)
- Kodiak Sciences (Consultant)
- Novartis (Consultant)

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

Virus-Like Particles Conjugated to a Cytotoxic Payload to form the VDC

VDCs can Recognize Tumor Associated HSPGs^{*}



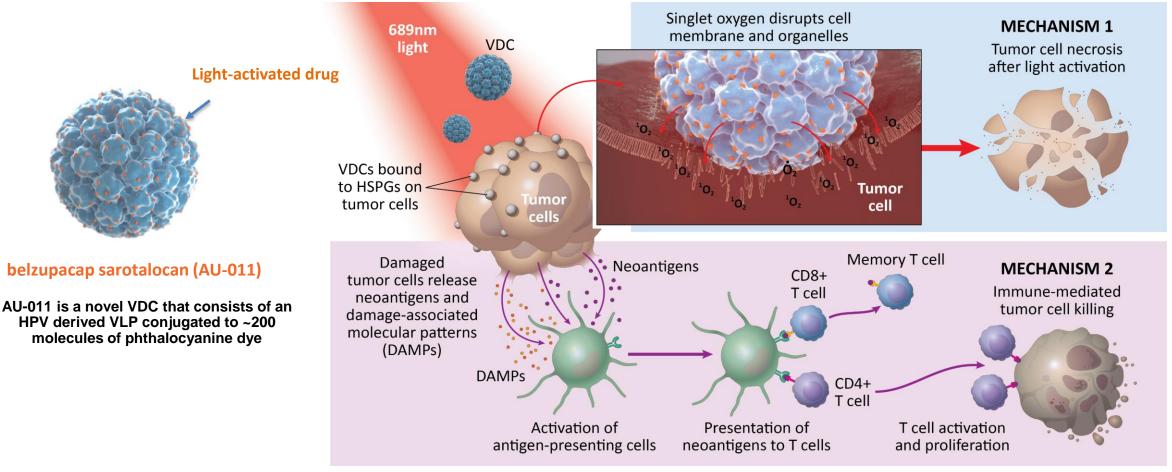


Technology Platform Designed to Target Broad Range of Solid Tumors Based on Virus-Like Particles with Multiple Options for Cytotoxic Payloads

Kines et al; International Journal of Cancer, 138;901–911, February 2016; Kines et al; Molecular Cancer Therapeutics, 17(2) February 2018; Kines et al; Cancer Immunology Research, May 2021

* HSPGs: Heparan Sulphate Proteoglycans

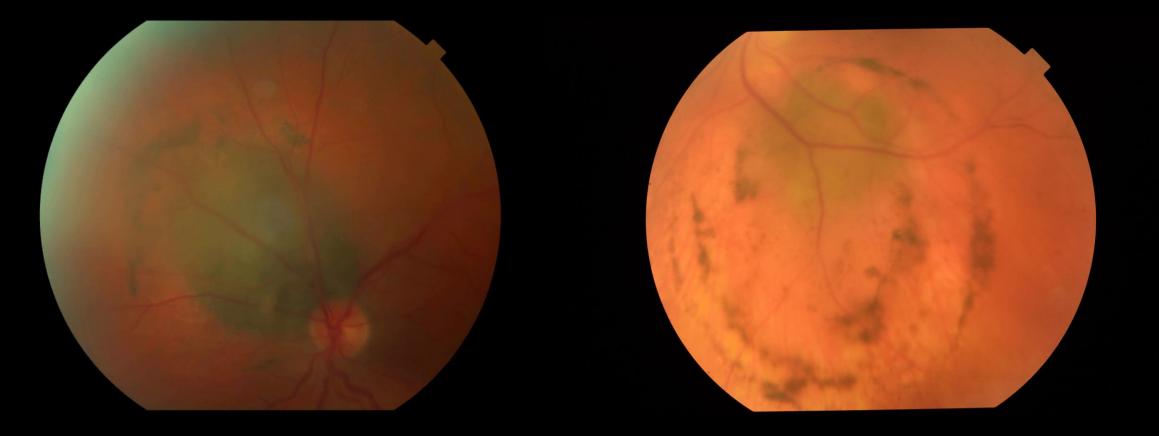
Belzupacap sarotalocan (AU-011) Is an Investigational VDC with a Novel Dual Mechanism of Action



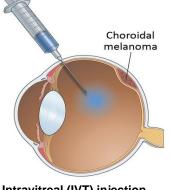
Summary of Phase 1b/2 Trial of AU-011 via Intravitreal Administration

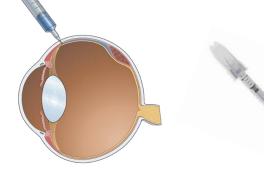
AU-011 was well tolerated with the majority of AEs transient and Safety managed with the standard of care Visual acuity preservation rate of 71-86% at 12 months even in **Visual Acuity** subjects with tumors close to the fovea or optic disc Tumor Control rate of 64%-70% at 12 months in subjects **Tumor Control** treated with the therapeutic regimen Tumor Thickness Growth Rate

Statistically significant reduction in tumor growth rates over 12 months with many subjects near or below zero (p<0.02)



Suprachoroidal Administration Optimizes Delivery to the **Posterior Segment**





Intravitreal (IVT) injection

Suprachoroidal (SC) injection

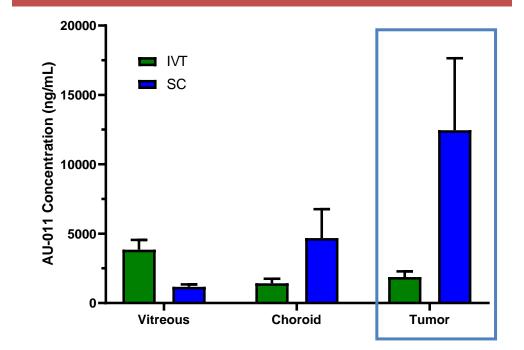
Optimize therapeutic index

- 5x higher tumor exposure with SC versus IVT observed in preclinical model
- Lower levels in the vitreous translates into lower risk of Intraocular Inflammation and vitreous floaters

Optimize treatment parameters 0

- Shorter time to laser activation
- May increase potential patient population
 - Medium choroidal tumors
 - Choroidal Metastases

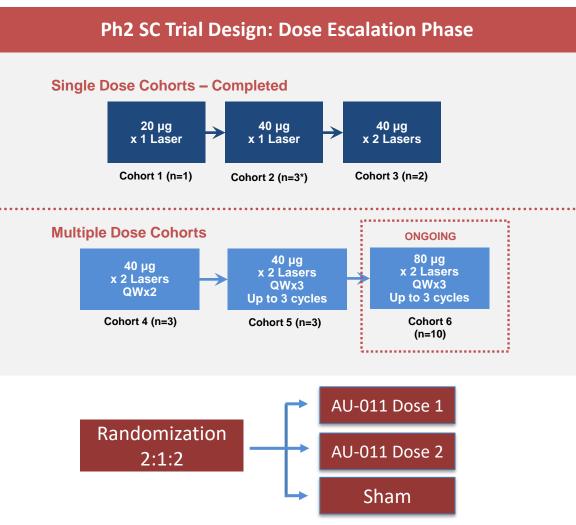
Ocular Exposure After IVT or SC Injection¹



PK studies in rabbit tumor model demonstrate higher tumor bioavailability with SC administration

Ph 2 SC Dose Escalation Study is Currently Enrolling with Supportive Safety To Date

Evaluating Suprachoroidal Administration to Determine Optimal Administration Route for Pivotal Trial



*2 subjects were planned; third subject was additionally enrolled due to dose error in 1 subject ClinicalTrials.gov Identifier: NCT04417530

18 subjects enrolled to date

- Cohort 6 currently enrolling
- 80µg dose and 3 cycles of therapy
 - Tumor thickness ≥0.5 mm and ≤2.5 mm
 - LBD ≤10 mm
 - Tumor growth within 3 mo -2 years of screening
 - Growth rate ≥ 0.2 mm/yr and <1.5 mm/yr</p>
 - 6 subjects enrolled

Objective:

- Determine the optimal dose and therapeutic regimen with suprachoroidal administration
- Apply route, dose and regimen to pivotal portion of the trial

DLT: Dose Limiting Toxicities

AU-011-202, NCT04417530

Phase 2 SC – Demonstrated Favorable Safety Profile To Date

All Treated Subjects (n=18) Treatment Related Adverse Events	Grade I	Grade II	Grade III	Total
Anterior chamber cell/ inflammation	22.2%	0	0	22.2%
Conjunctival edema	5.6%	0	0	5.6%
Conjunctival hyperemia	16.7%	0	0	16.7%
Cystoid macular edema	5.6%	0	0	5.6%
Eye pain	5.6%	5.6%	0	11.1%
Eyelid edema	5.6%	0	0	5.6%
Ocular discomfort	5.6%	0	0	5.6%
Photophobia	5.6%	0	0	5.6%
Punctate keratitis	11.1%	0	0	11.1%
Pupils unequal	5.6%	0	0	5.6%
Retinal pigment epitheliopathy	5.6%	0	0	5.6%
Salivary gland enlargement*	0	5.6%	0	5.6%
Vision blurred	5.6%	0	0	5.6%
Afferent pupillary defect (term not coded yet)	5.6%	0	0	5.6%

Table presents percentage of subjects with AEs related to AU-011 or laser by severity and overall; subjects with more than 1 AE are counted in the highest severity group

*Likely related to COVID vaccine per investigator

Preliminary results

- Majority of AEs were transient and resolved without clinical sequelae
- No DLTs[†], no significant vitritis to date through 3 cycles with 80 µg of AU-011
- 4 moderate severity events related to injection procedure - scleritis, subconjunctival hemorrhage, conjunctival edema and eye irritation. All other injection related events were mild
- 6 non-treatment related SAEs reported in 3 subjects[^]
- No pigmentary changes observed at edge of tumor treatment

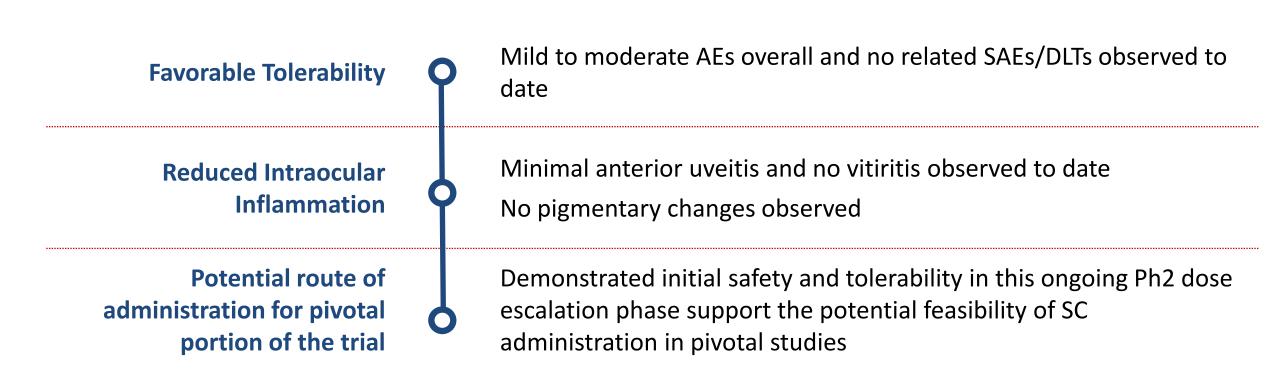
Favorable Tolerability in Early Cohorts with no Related SAEs/DLTs Observed to Date

[†] DLTs: Dose Limiting Toxicities, ^ retinal detachment, ischemic CRVO, brain abscess, deep vein thrombosis, sarcoma, seizure

Ph2 SC trial (AU-011-202) ClinicalTrials.gov Identifier: NCT04417530.

Data cutoff Jun 1, 2022

Targeted Suprachoroidal Delivery May Lead to an Improved Risk:Benefit Profile Compared to IVT administration



AU-011 Ocular Oncology Investigator Group

