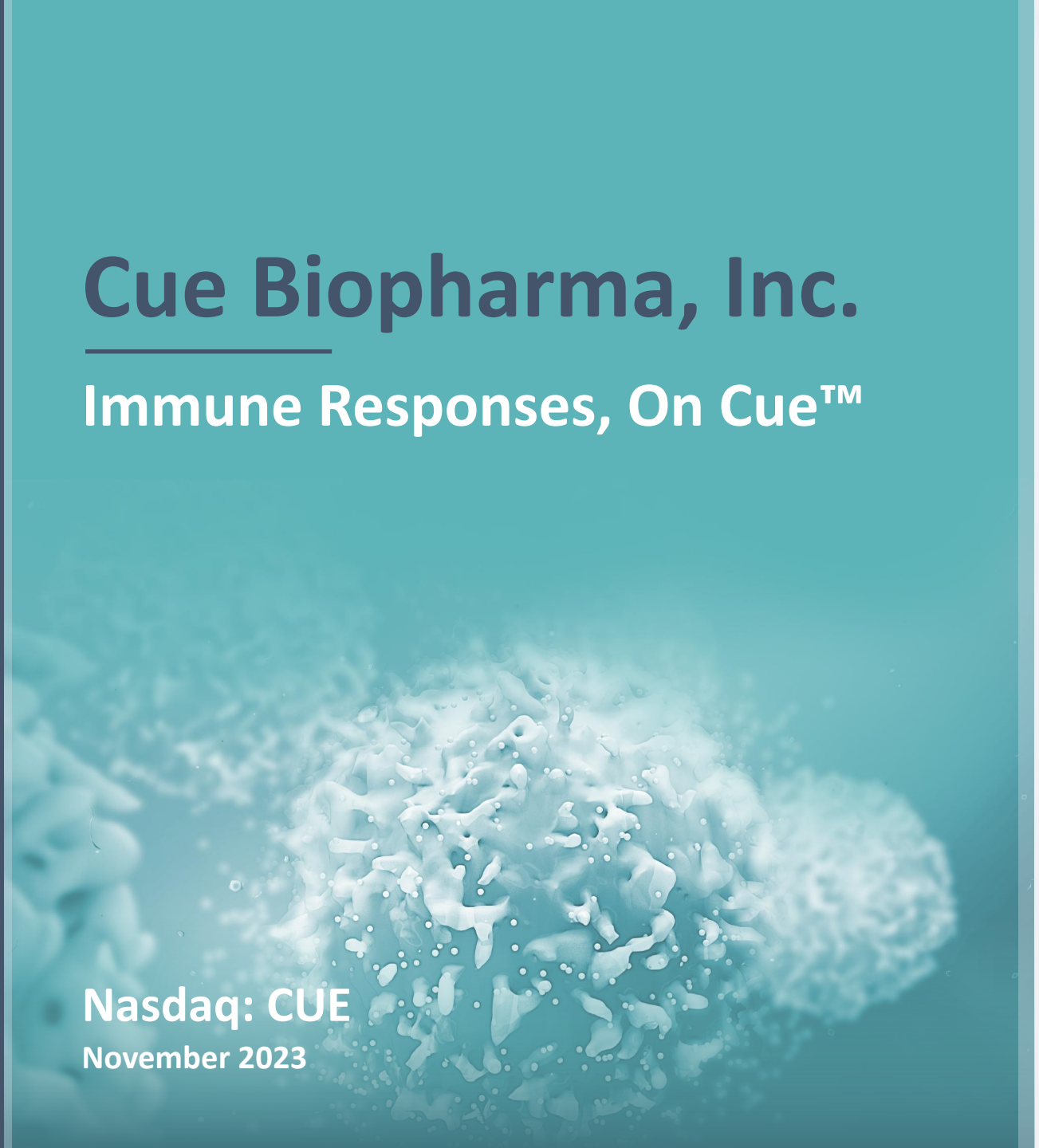
Cue Biopharma, Inc.

Immune Responses, On Cue™



Nasdaq: CUE

November 2023

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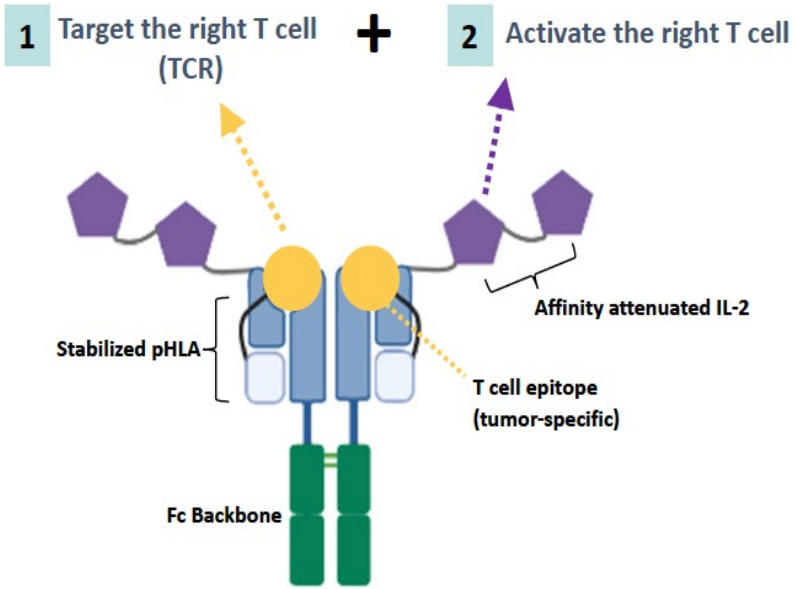
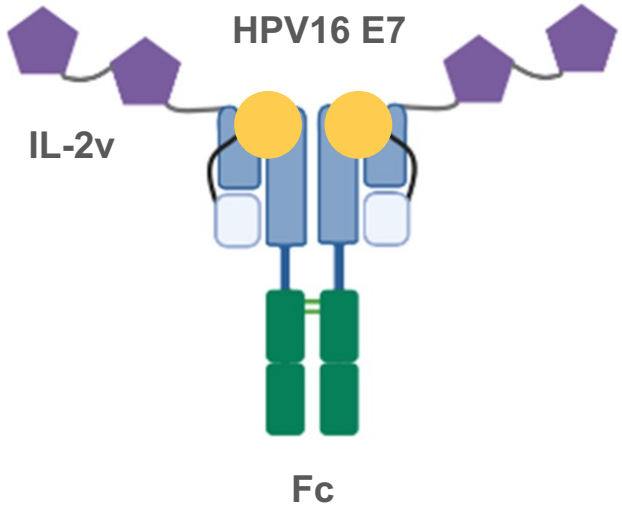
Immuno-STATs: A Breakthrough Platform for Immunotherapy



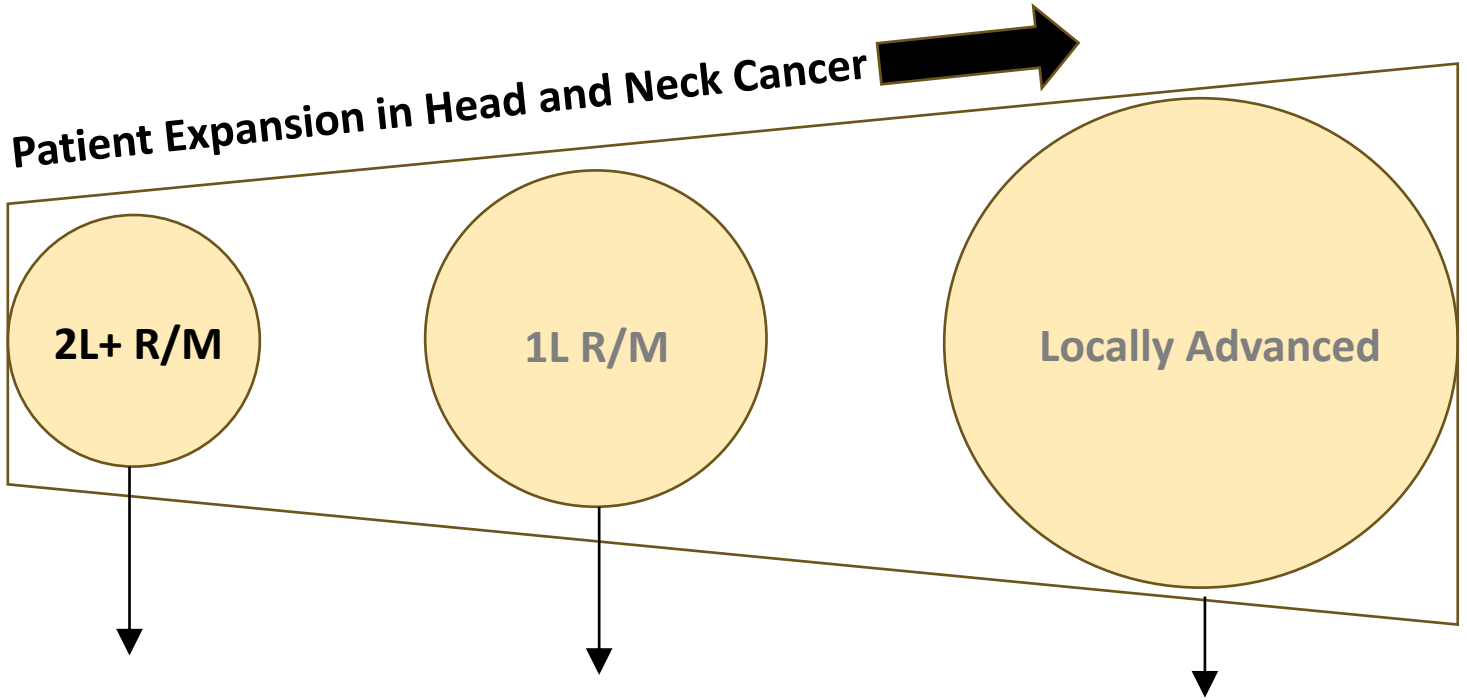
- **CUE-100 series:** Generation of a therapeutic index for IL-2
  - *Tolerability and lack of serious IL-2 toxicities*
- **Clinical efficacy in advanced/metastatic cancers**
  - *Mono Tx (3L+): prolonged survival*
  - *CPI Combo Tx (1L): significant increase in ORR (maturing OS/PFS)*
- **Multiple potential paths to approval**
  - *Requested meeting w/ FDA*
- **Well positioned for pipeline expansion**
  - *Platform modularity to target many cancers*
  - *Significant regulatory and development advantages*

CUE-101

CUE-101: Lead Clinical Program for HPV Associated Cancers



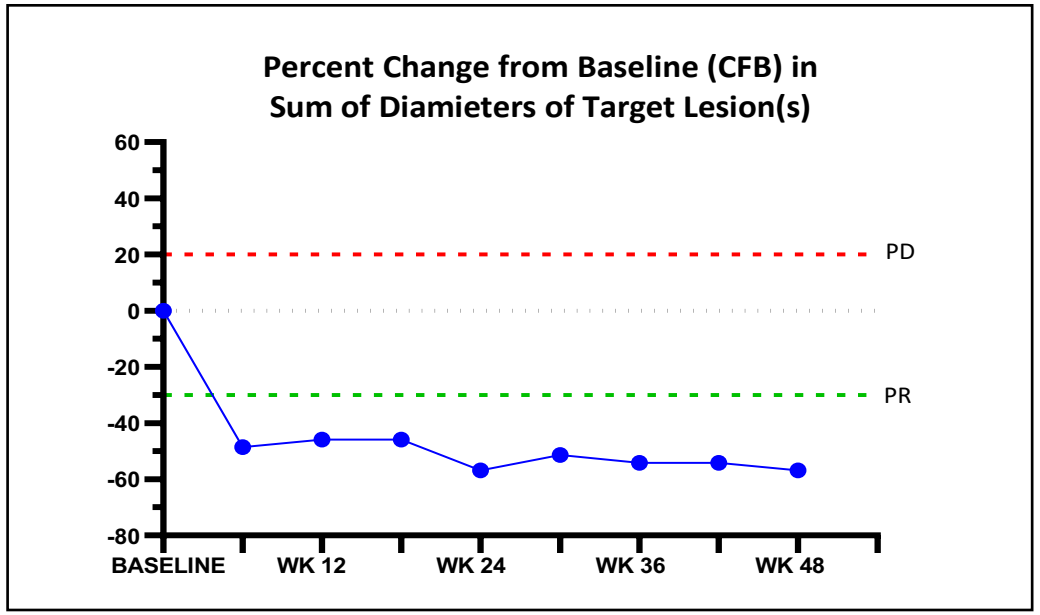
Note: mOS = Median Overall Survival
SOC = Standard of Care
ORR = Overall Response Rate
IIT = Investigator Initiated Study



REGIMEN	CUE-101	CUE-101 + KEYTRUDA	Neoadjuvant	Adjuvant
STATUS	**Phase IA/IB** Fully Enrolled Doubled mOS vs. SOC	**Phase IA/IB** Fully enrolled Doubled ORR vs. SOC mOS maturing	**IST** Ongoing	**IST** Planned

CUE-101 Monotherapy: Patterns of Clinical Efficacy in 2L+ R/M HNSCC Patients

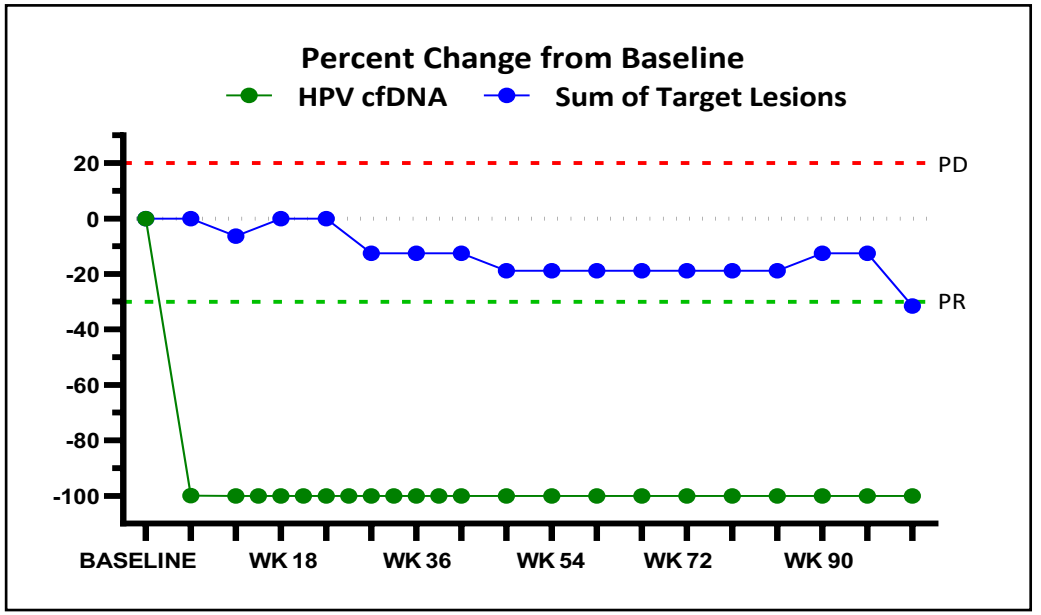
Patient A



- **Rapid tumor reduction and durable PR**
- **Remained on treatment for ~1 year**

Sources CUE-101 SITC Poster Nov 2023

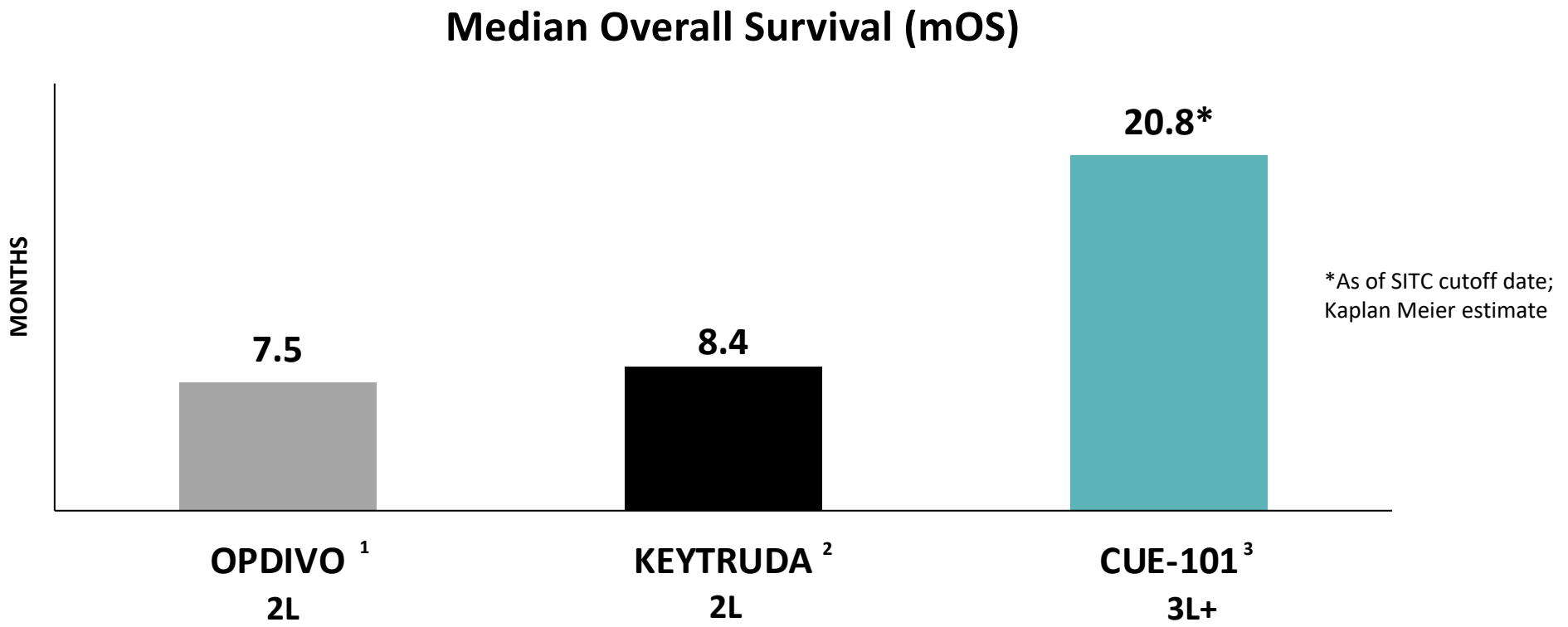
Patient B



- **Durable SD with sustained non-detectable levels of HPV cfDNA**
- **Completed treatment (24 months)**
- **Unconfirmed PR on last scan (10/23)**

All monotherapy enrolled patients have failed prior therapies including CPIs.

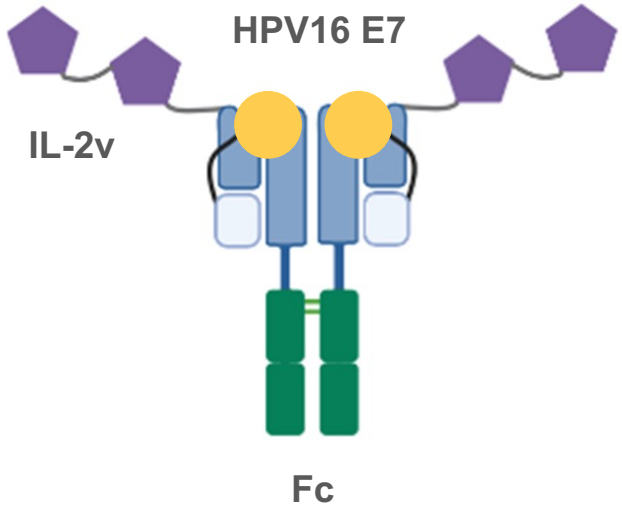
CUE-101 Monotherapy: Potential Best-in-Class 2L+ Regimen for Patients with HPV+ R/M Head and Neck



Prolonged survival observed with CUE-101 monotherapy compared to historical OPDIVO/KEYTRUDA monotherapy benchmarks in 2L R/M head and neck cancer

Sources; 1. Ferris et al Checkmate 141 NEJM 375;19, 2016 2. Cohen et al KEYNOTE-040 Lancet, 2018 3) CUE-101 SITC Poster Nov 2023

CUE-101: Lead Clinical Program for HPV Associated Cancers



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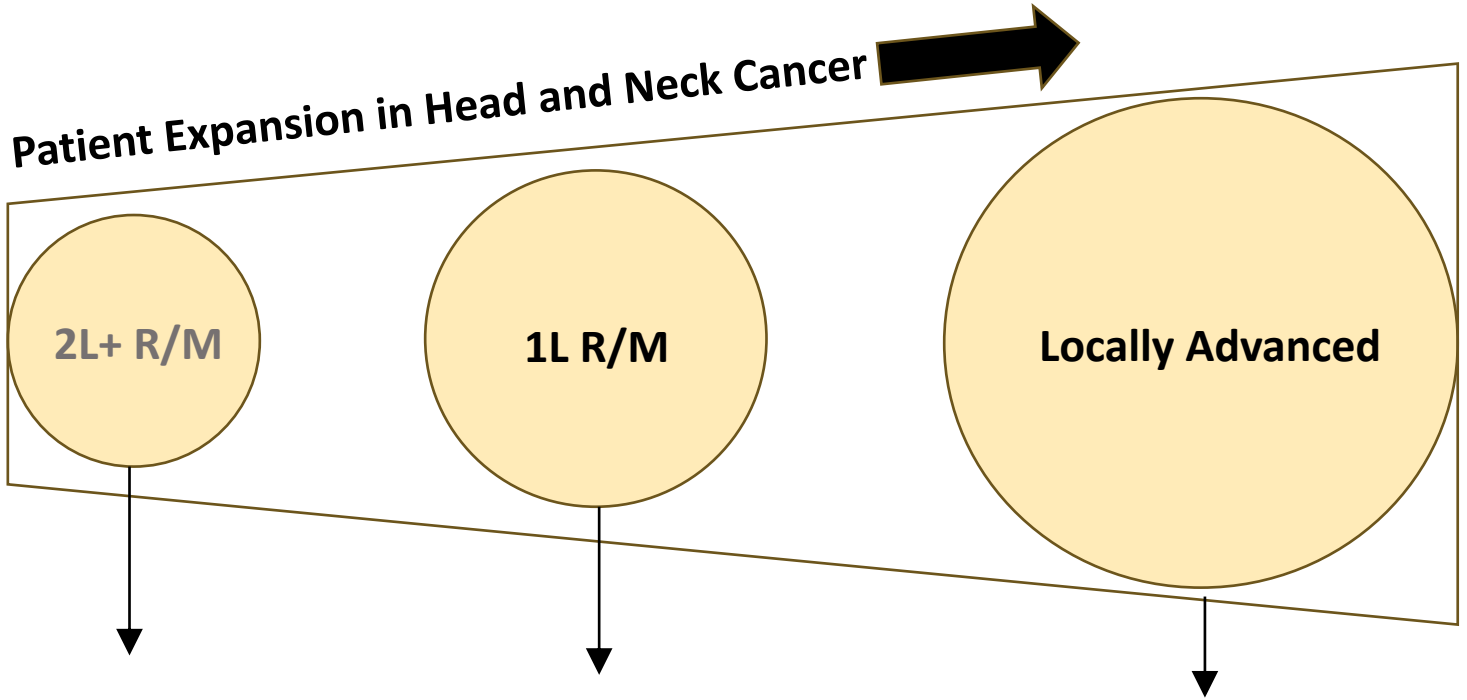

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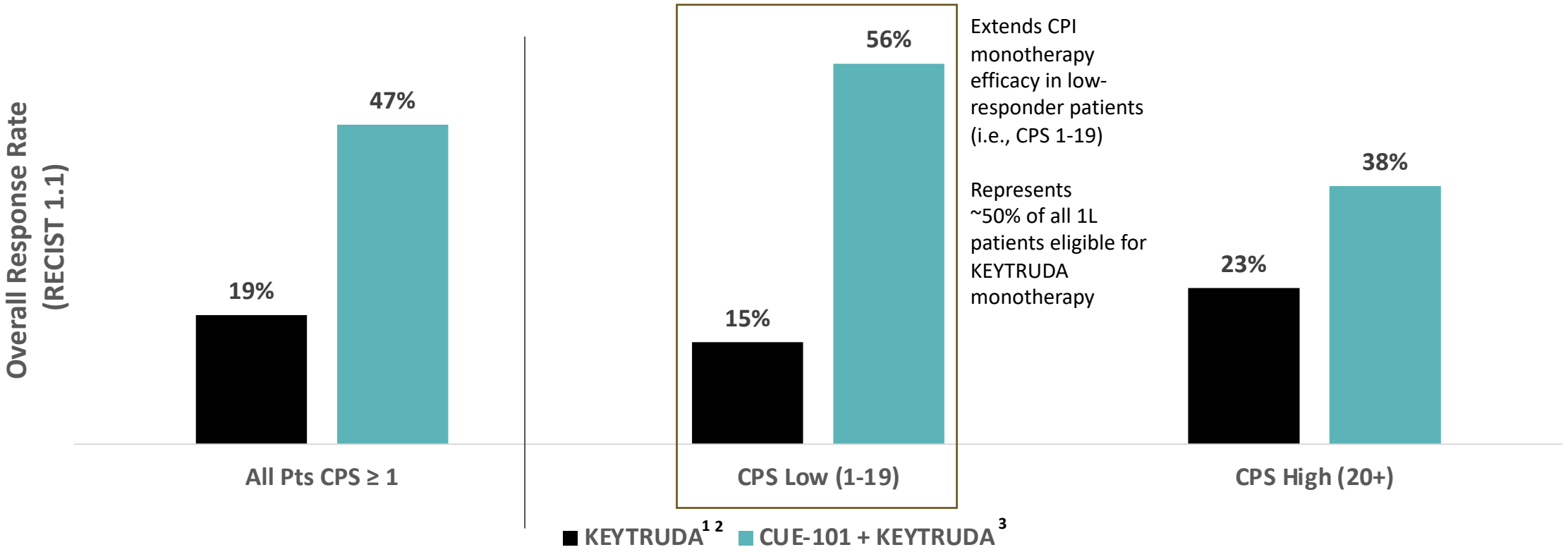
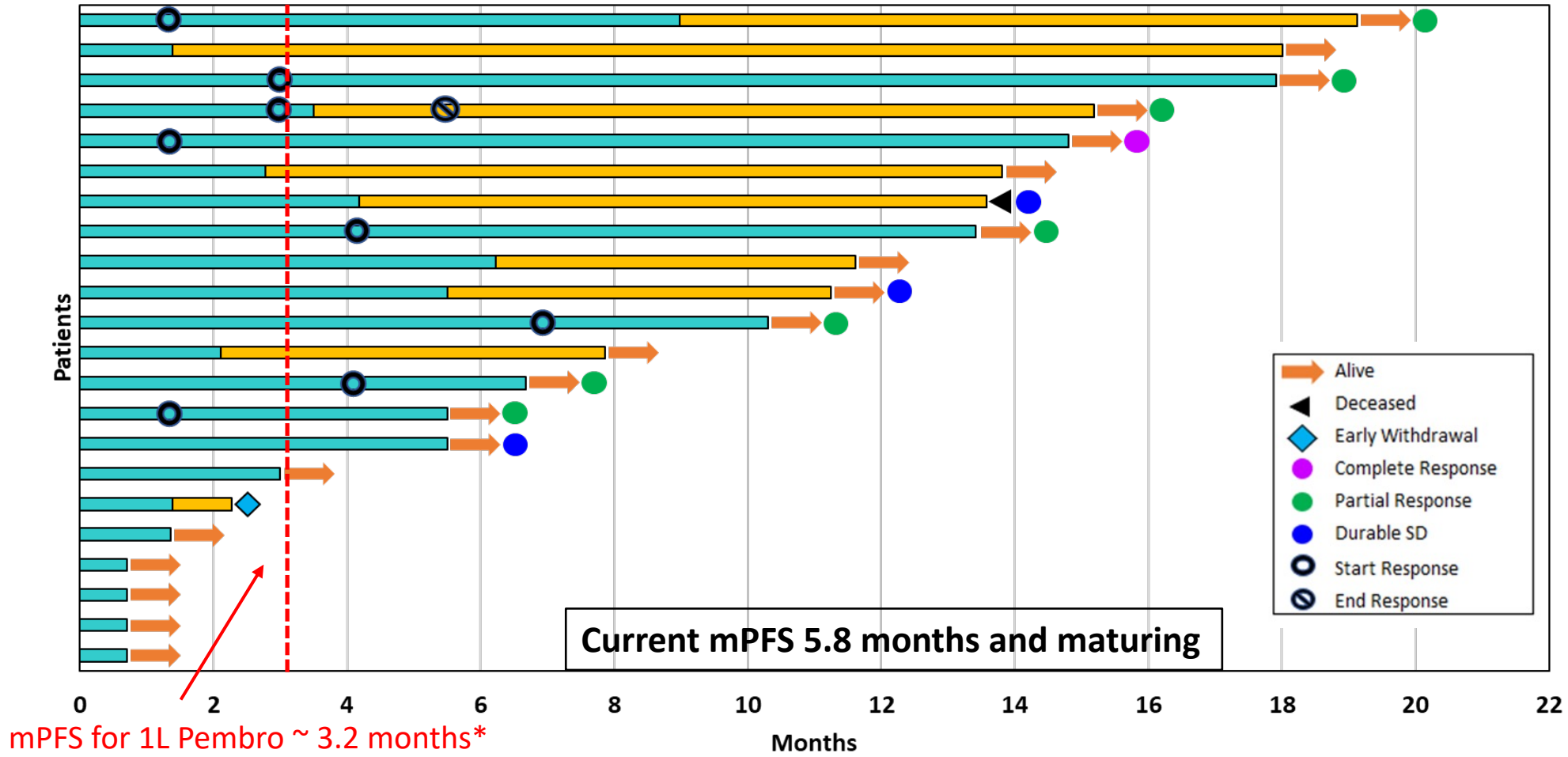
STATUS	**Phase IA/IB** Fully Enrolled Doubled mOS vs. SOC	**Phase IA/IB** Fully enrolled **Doubled ORR vs. SOC** mOS maturing	IST **Ongoing**	IST **Planned**

CUE-101 + KEYTRUDA: Potential Best-in-Class 1L Regimen for Patients with HPV+ R/M Head and Neck Cancer



Source: 1) KEYNOTE-048 Study Burtness B et al, Lancet 2019. 2) Harrington et al J Clin Oncol 41:790-802, 2022. 3) CUE-101 SITC Poster Nov 2023

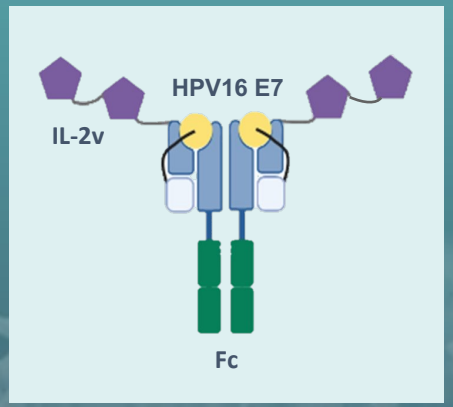
Survival in Combination Patients at the RP2D



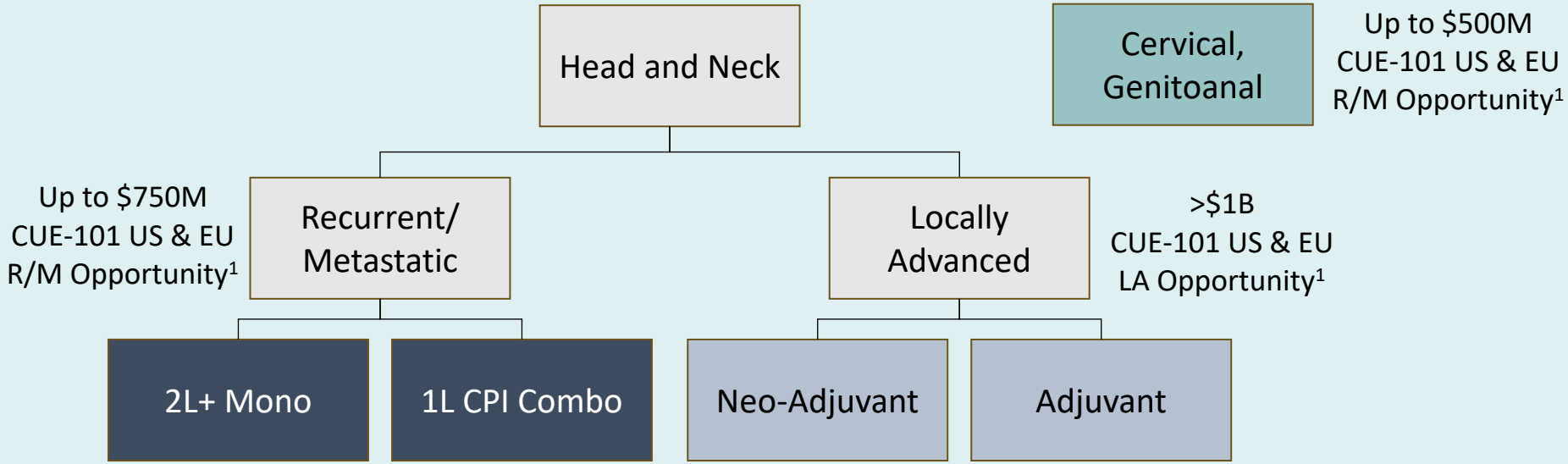
Overall survival (months from 1st dose) in patients treated with 4 mg/kg CUE-101 and pembrolizumab (N=22) at 27-Sep-2023. Durable stable disease (SD) requires RECIST 1.1 SD on ≥ 2 consecutive scans. Response duration is indicated on the plot. Kaplan-Meier estimate of median PFS 5.8 months [95% CI; 2.6, NA].

CUE-101: Market Opportunities in HPV Associated Cancers

CUE-101



Clinical Development and Market Opportunities



- Potential Registration Pathway, Fast Track Designation
- Indication Expansion Opportunities
- Ongoing/Planned Investigator Initiated Studies

Source: 1) Qral Group Analysis, 2022

CUE-101: Clinical Validation and Platform De-risking

- ✓ **Demonstrated single-agent anti-tumor activity**
  - *RECIST-based PR and durable stable disease (DSD) in 3L+ R/M HNSCC patients*
  - *Prolonged survival observed (Kaplan-Meier estimate of mOS >20 months)*
- ✓ **Enhancement of clinical efficacy in combination with CPI in 1L R/M HNSCC**
  - ***47% ORR** in combo w/pembro vs ~19% ORR pembro alone*
  - *Confirmed Complete Response*
  - *Objective responses observed in tumors with low PD-L1 expression*
    - ***56% ORR** in CPS 1-19 (compared to 14.5% with pembrolizumab monotherapy)*
  - *PFS of 5.8 months and mOS maturing*
- ✓ **Tolerable at clinically active doses**
  - *No vascular leak syndrome (VLS)*
  - *No severe cytokine release syndrome (CRS)*
  - *No synergistic toxicity with CPI observed*
- ✓ **Fast Track Designation granted for both monotherapy and combination therapy (Oct. 2022)**
- ✓ **FDA Type B meeting request submitted to align on registrational paths**

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CUE-102

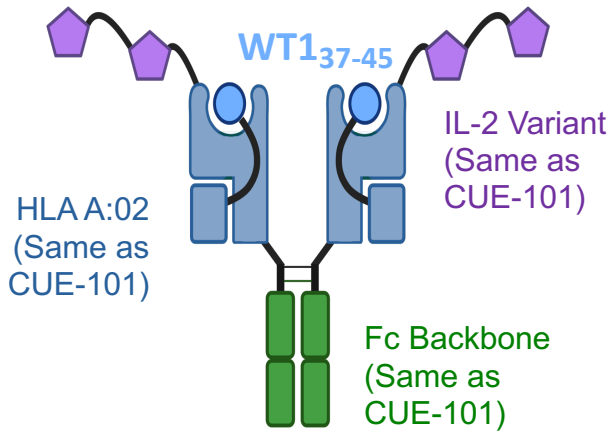
Wilms' Tumor 1: Well Characterized Cancer Target with Broad Applicability

Wilms Tumor 1 (WT1)[1]

- Ranked as #1 cancer antigen by National Cancer Institute [1]
- Intracellular oncofetal antigen, favorable clinical track record with low potential for off-target toxicity
- Validation of clinical efficacy via TCR-T approaches
- Broadly expressed in 20+ hematological malignancies and solid tumors, including colorectal, gastric, ovarian, and pancreatic cancers

Source: Prioritization of Cancer Antigens: NCI Pilot Project for the Acceleration of Translational Research' Cheever et al; Clin Cancer Res., 2009

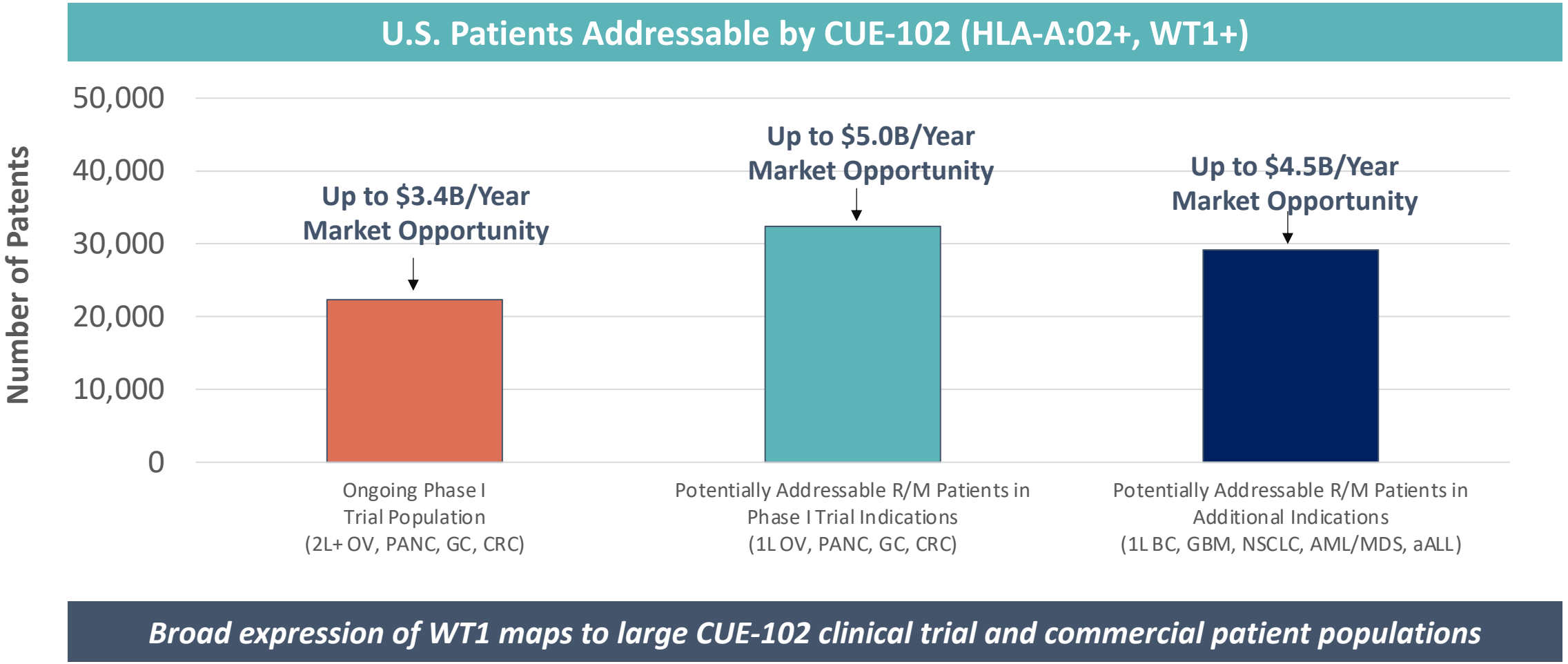
CUE-102 Molecular Design



99% sequence identical to CUE-101

- FDA approved CUE-102 IND with no additional IND tox studies
- FDA approved CUE-102 dose-escalation to start at the clinically active dose of 1 mg/kg, expediting clinical development

CUE-102: Phase 1 U.S. Trial Population and Market Opportunities

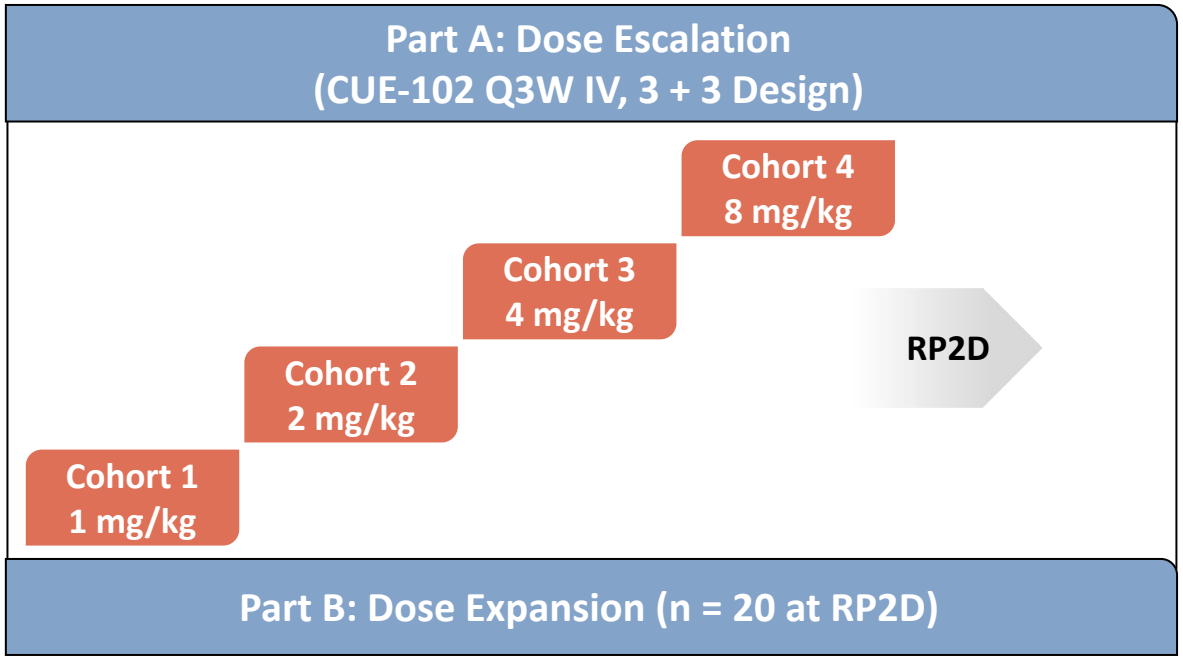


Broad expression of WT1 maps to large CUE-102 clinical trial and commercial patient populations

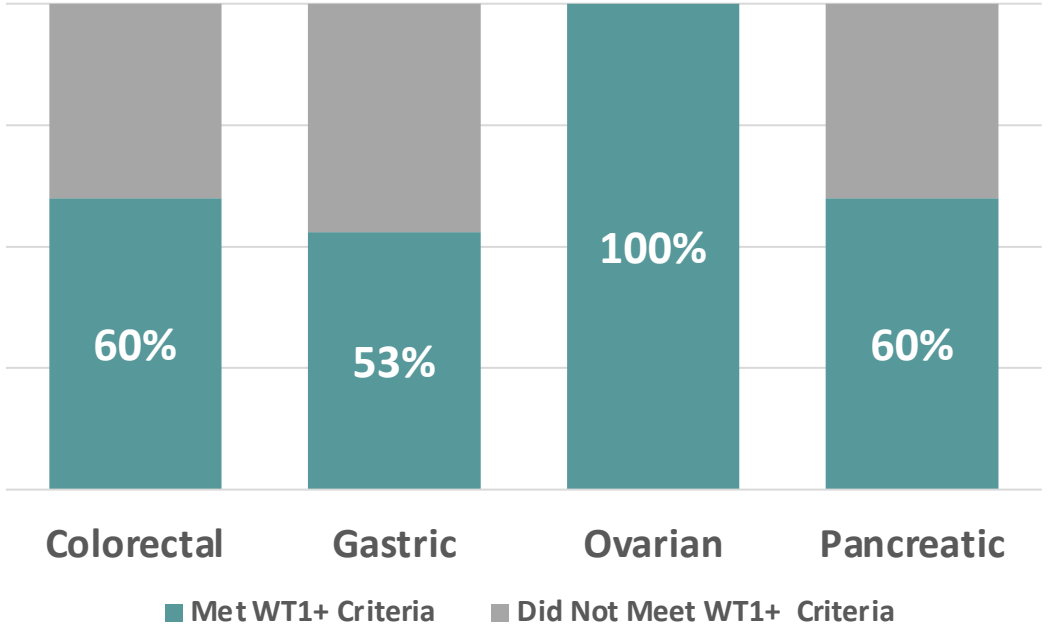
*Source: Qral Group Analysis: Note: adjusted for HLA A*02 and WT1 antigen expression*

CUE-102: Ongoing Phase 1 Study

CUE-102 Monotherapy Trial Design[1]



CUE-102 Patient Screening Indicates Substantial WT1 Expression Across Target Indications[2]



Objectives

- ***Primary:*** Safety and tolerability
- ***Secondary:*** PK/PD, Anti-tumor activity (RECIST 1.1)

Key Eligibility

- WT1+ colon, gastric, pancreatic and ovarian cancers
- HLA-A*02:01 genotype

Source: 1) Clinicaltrails.gov NCT05360680, 2) CUE-102 SITC Poster Nov 2023 (represents 113 patients as of the SITC data cut-off date)

CUE-102: Dose Escalation Patient Status by Cohort

Cohort	Treated	Evaluable	SD	DCR	Status
C1 (1 mg/kg)	3	3	1	33%	0/3 on treatment
C2 (2 mg/kg)	6	5	4	**80%**	3/6 on treatment
C3 (4 mg/kg)	5	4	3	**75%**	4/5 on treatment
C4 (8 mg/kg)	4	2	1	50%	2/4 on treatment

Fourteen of 18 patients had at least 1 post-dose scan as of Oct-01-2023 and were available for disease response.

SD = Stable Disease by RECEIST 1.1 criteria on a scan 6 weeks after 1st dose, duration of SD ranges from 6 – 24 weeks. DCR = Disease Control Rate (OR + PR + SD). Nine remain on treatment.

Sources: CUE-102 SITC Poster Nov 2023

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CUE-102: Tumor Reduction Observed in Heavily Pre-treated Gastric Cancer Patient (2mg/kg dose)

64 yo male

Gastric Cancer T4N2Mx

Diagnosed July 2021

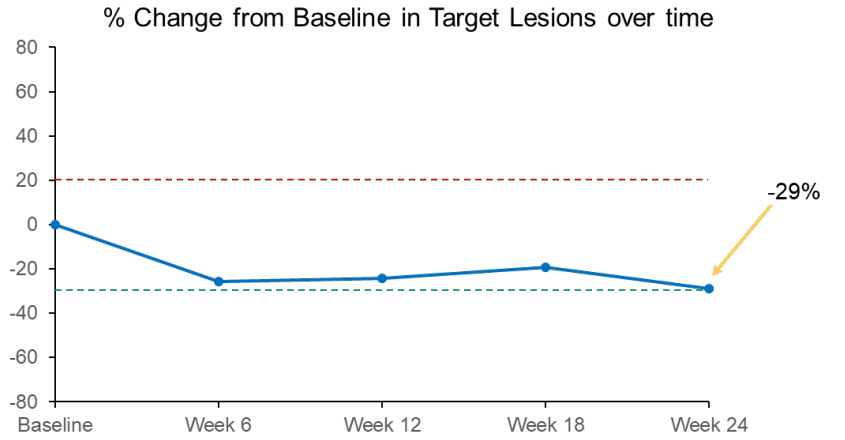
Prior Therapy:

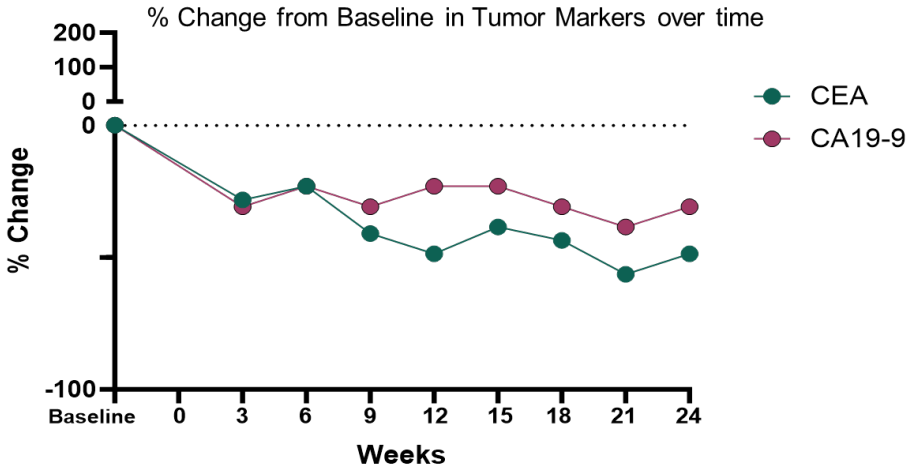
1. Neo-adjuvant FLOT x 4 cycles
   Total Gastrectomy with LN dissection
2. Adjuvant FLOT x 4 cycles
   PET/CT Nodal recurrence 8 months off-therapy
3. FOLFOX + Nivolumab x 2 cycles.
   Progressive disease on CT scan

Enrolled on Cohort 2 (2 mg/kg)

WT1 staining

Intensity	Nuclear	Cytoplasmic
1+	0%	40%
2+	0%	5%
3+	0%	0%
H-Score	0	50





Sources: CUE-102 SITC Poster Nov 2023

CUE-102: Tumor Reduction Observed in Heavily Pre-treated Ovarian Cancer Patient (2mg/kg dose)

52 yo female
Ovarian Cancer FIGO stage IVA (T3N0M1)
Right Ovary & Fallopian Tube with peritoneal carcinomatosis
Diagnosed August 2021

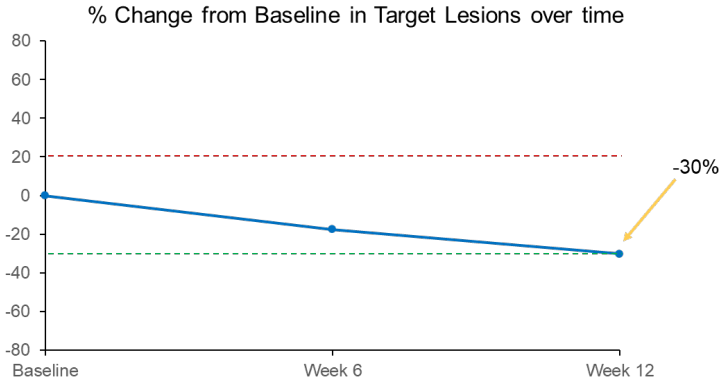
Prior Therapy:

1. Neoadjuvant Carboplatin + Paclitaxel
   Debulking surgery :
   Laparoscopic hysterectomy, bilateral salpingo-oophorectomy and omentectomy
2. Adjuvant Carboplatin + Paclitaxel
   New lesion Left Hemipelvis 8 months off-therapy
3. Carboplatin + Doxorubicin x 6 cycles
   Progressive disease on CT scan
4. Cytoxan + Avastin palliation x 3 months
   Progressive disease on CT scan

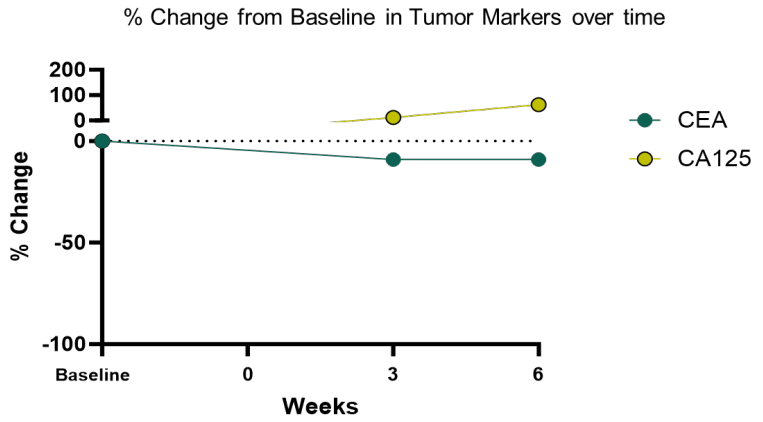
Enrolled in Cohort 2 (2 mg/kg)

WT1 staining

Intensity	Nuclear	Cytoplasmic
1+	0%	2%
2+	5%	0%
3+	95%	0%
H-Score	295	2



Reductions in Target Lesions in two early cohort patients

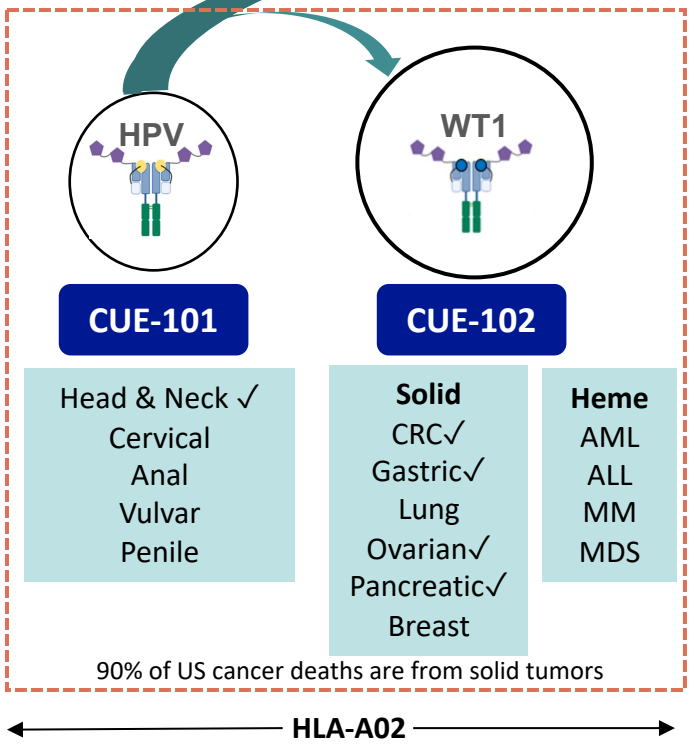


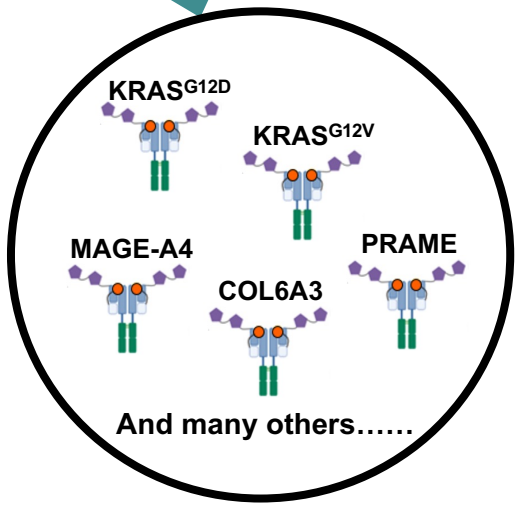
Sources: CUE-102 SITC Poster Nov 2023

BROAD Opportunities for CUE-100 Series in Cancer Immunotherapy

Clinical PoC with CUE-101 Provides a Springboard for Platform Expansion into Broad Indications

Clinical-stage Assets

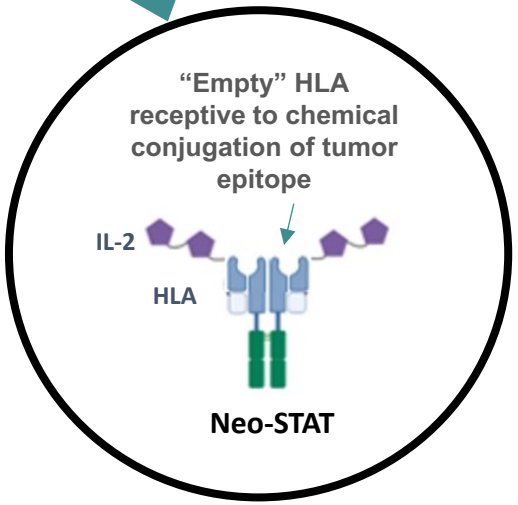




TBD: CUE-103, CUE-104, 105 etc.

Multiple Cancers and Multiple HLA Alleles

HLAs: A01, A02, A03, A11, A24, more
85% of global population can be addressed with 5 alleles



Mixtures of tumor Ags / Neo-Ags

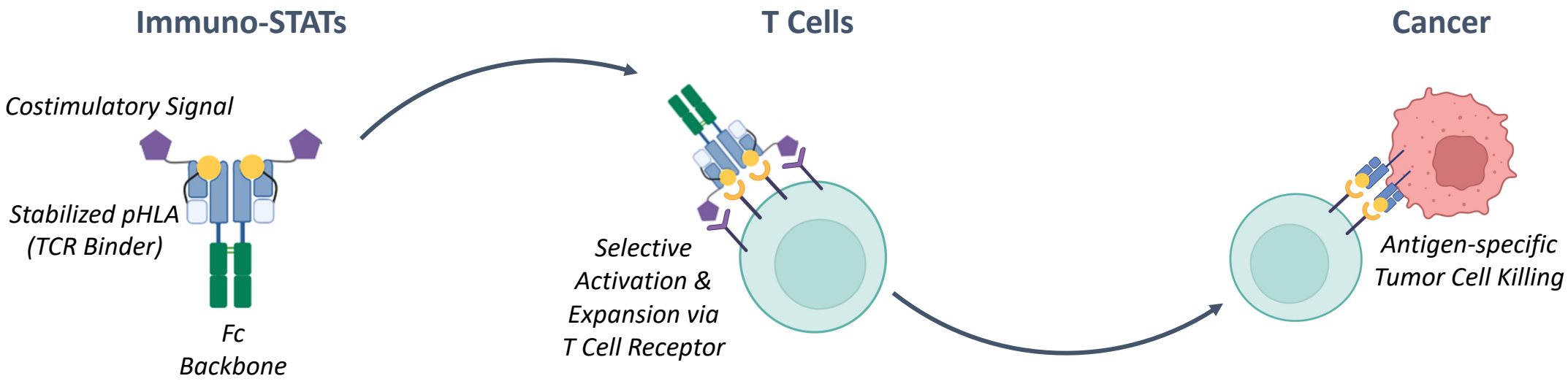
"Off-the-shelf" Approach for Tumor Heterogeneity

Increases R&D efficiency and enables targeting of multiple tumor antigens
(including post-translationally modified peptides)

Structural similarity creates potential regulatory and development efficiencies

Competitive Positioning & Upcoming Milestones

Immuno-STATs: Best-in-class T cell Engagers

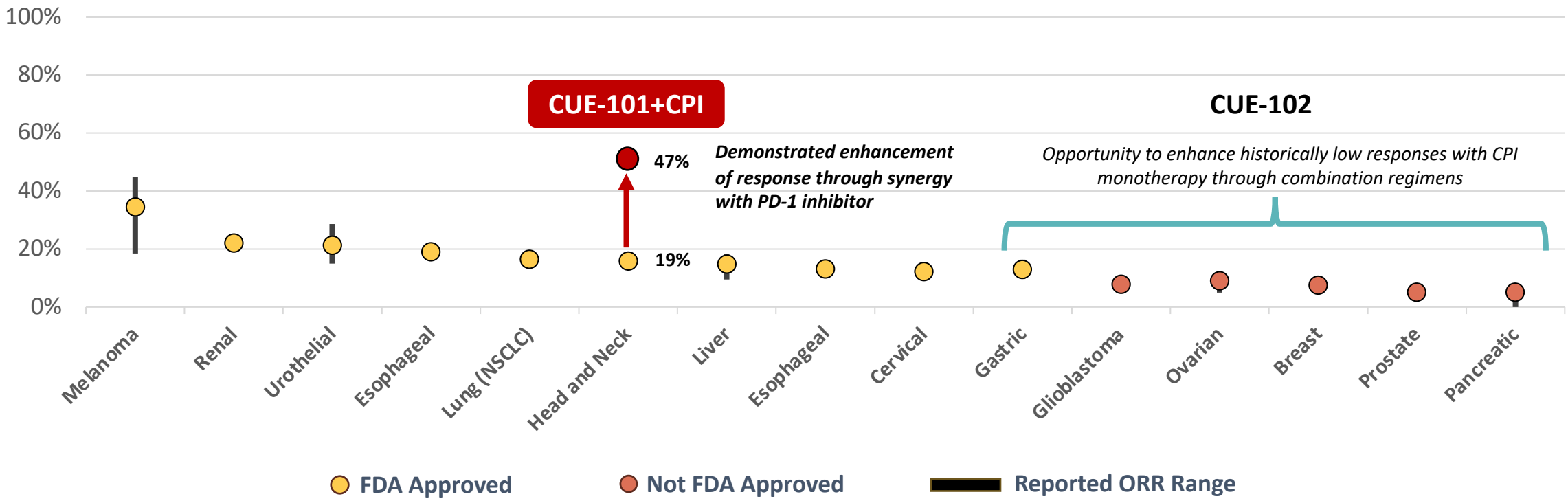


Key Points of Differentiation as demonstrated with first clinical candidate: CUE-101

- Antibody-like **manufacturing** process with 36+ months drug product stability
- Off-the-shelf IV administration once every three weeks (Q3W)
- Clinical anti-tumor activity as monotherapy and in combination with checkpoint inhibition
- Well tolerated, able to be combined with standard of care modalities, e.g. KEYTRUDA
- TCR-selective engagement creates therapeutic index for cytokines, e.g. IL-2
- Modular design de-risks therapeutic framework and presents significant regulatory/clinical advantages

Current State of Immunotherapy: Significant Unmet Need Remains Despite Recent Breakthroughs with Checkpoint Inhibitors

Reported Overall Response Rate with PD-1/PD-L1 Monotherapy[1]

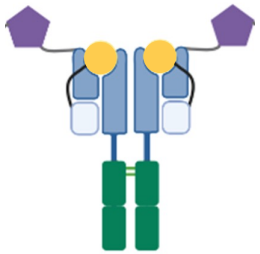


Meaningful enhancement of response to checkpoint inhibitor therapy, requires engagement and activation of T cells

Source: 1) Mao et al. Cancer Immunol Immunotherapy. 2023 Jul;72(7):2483-2498. Doi: 10.1007/s00262-023-03441-3. Epub 2023 Apr 6.

Immuno-STAT Platform: Positioned for Near-term Value Inflection

Immuno-STATs



Clinically validated class of novel T cell engagers with potential to significantly improve efficacy over current standard of care in a broad range of diseases

Milestones	
CUE-101 Monotherapy	**1Q 2024:** Define Registration Path
CUE-101 + Pembrolizumab	**1H 2024:** Provide Topline Readout **2H 2024:** Define Registration Path
CUE-101 Neoadjuvant (IST)	**1H 2024:** Complete Enrollment for Neoadjuvant IST
CUE-102 Monotherapy	**2H 2023:** Complete dose escalation **1Q 2024**: Initiate Dose Expansion
CUE-401	**1H 2024:** Select Clinical Candidate **2H 2024:** Ono Option Decision
Immuno-STAT Program(s)	**1H 2024:** Execute Strategic Partnership

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Thank You

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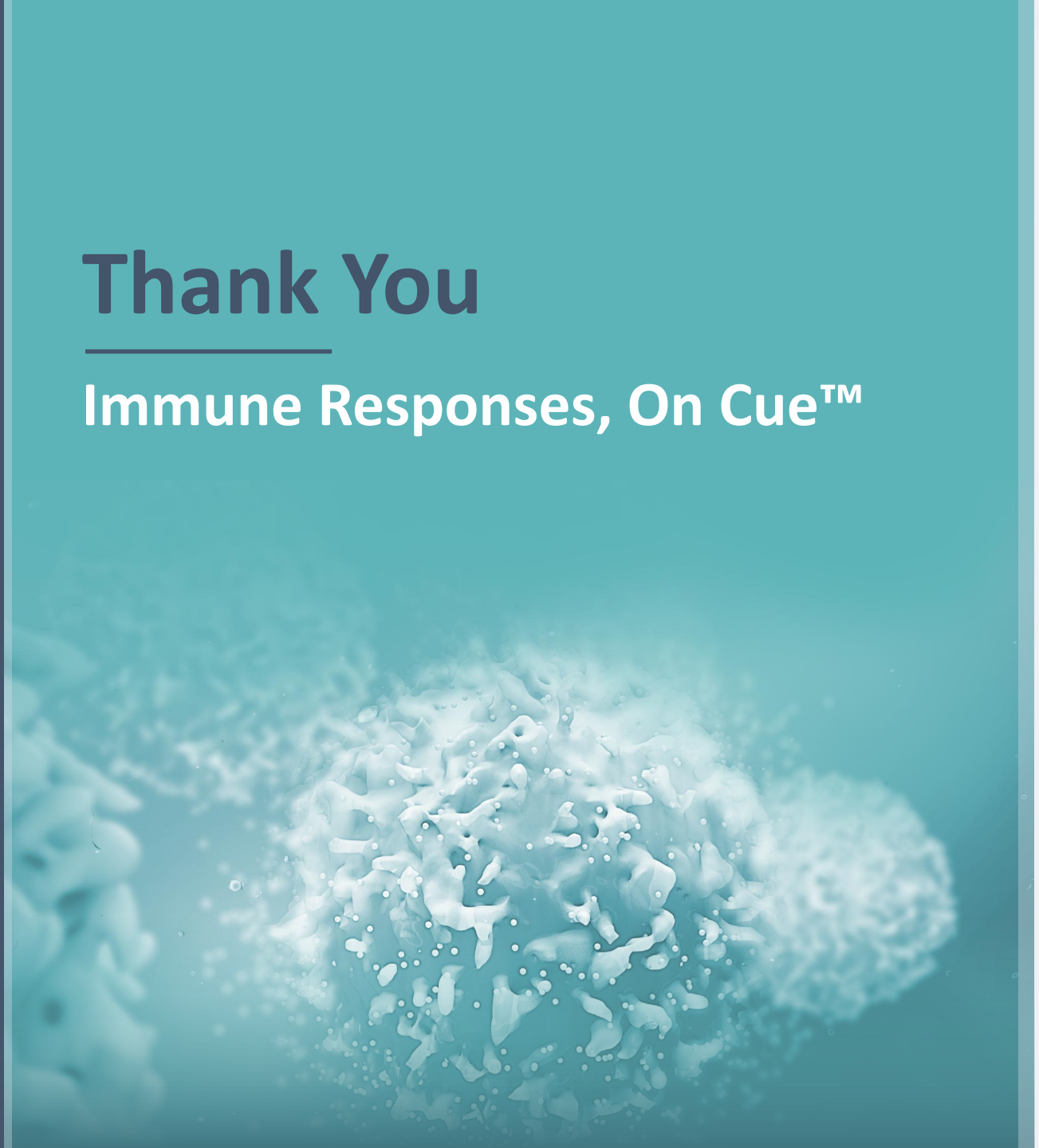

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