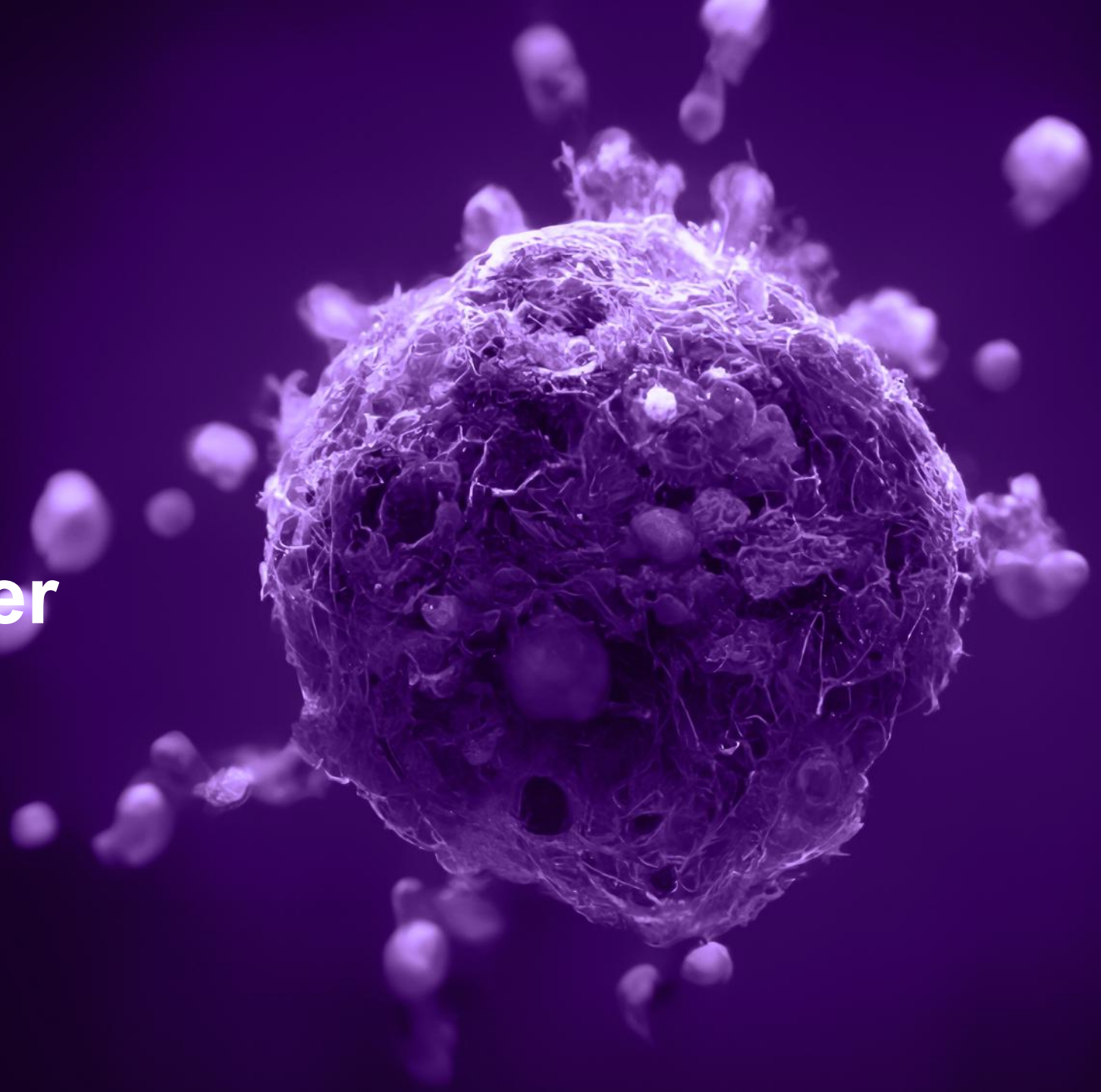
TuHURA biosciences

Overcoming Resistance to Cancer Immunotherapy



August 2026

tuhurabio.com

Forward Looking Statements

This presentation includes “forward-looking statements” under the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, and TuHURA’s actual results may differ from its expectations, estimates and projections expressed in its forward-looking statements, and consequently you should not rely on these forward-looking statements as predictions of future events. Words such as “expect,” “estimate,” “project,” “budget,” “forecast,” “anticipate,” “intend,” “plan,” “may,” “will,” “could,” “should,” “believes,” “predicts,” “potential,” “continue,” and similar expressions are intended to identify such forward-looking statements. These forward-looking statements include, without limitation, statements about the anticipated development, regulatory pathway and timing of our IFx-2.0 Phase 3 trial; the development of TBS-2025 and our other technologies and product candidates; and our existing and anticipated capital resources. These forward-looking statements involve significant risks and uncertainties that could cause the actual results to differ materially from the expected results, including the risks set forth in the “Risk Factors” section of TuHURA’s Annual Report on Form 10-K for the year ended December 31, 2025. TuHURA does not undertake or accept any obligation or undertaking to update or revise any forward-looking statements to reflect any change in its expectations or any change in events, conditions or circumstances on which any such statement is based.

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We are a Phase 3 immuno-oncology company developing three distinct novel technologies and therapeutics to overcome primary and acquired resistance to cancer immunotherapies

Investment Highlights

Overcoming resistance to cancer immunotherapies

IFx-2.0 in a Ph3 accelerated approval study in 1st Line Merkel Cell Carcinoma

- Top-line data expected 2H 2027
- Confirmatory trial not expected to be required
- Special Protocol Assessment (SPA) Agreement with the FDA

VISTA inhibiting Mab Ph1b/2 study in AML initiation in 2H 2026

- Craig Tendler, M.D. former Global Head I/O JNJ to lead program

Immune modulating ADC proof-of-concept data anticipated in 2H 2026 providing partnering opportunity

Presentations at multiple scientific meetings across portfolio assets

$50mm credit facility and royalty transaction provides non-equity source of operating capital

- Anticipated to provide runway through Q1 2028 and optionality for other sources of capital

Diversified Immuno-Oncology Pipeline

PROGRAM	DRUG CANDIDATE	INDICATION	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	Upcoming Milestone
Innate Immune Agonists	**IFx-2.0 Innate Immune Agonist**	1st Line Merkel Cell Cancer Keytruda® +/- IFx-2.0 or placebo[1]					**2H 2027:** Phase 3 Expected Topline Results
		Primary Checkpoint Inhibitor Resistant Metastatic Cancer "Basket" Trial					**2H 2026:** Phase 1a/2b Preliminary results Q4
TME Modulators **Negative Immune Regulators**	**TBS-2025 VISTA inhibiting mAb[1]**	*mut*NPM1 Acute Myeloid Leukemia					**2H 2026:** Phase 1b/2 Expected Trial Initiation
TME Modulators **MDSC Inhibitors**	**Bi-specific ADCs**	Myelodysplasia Acute Myeloid Leukemia					**2H 2026** Expected to initiate ADC *in vivo* POC studies

[1] Trial conducted under SPA agreement with U.S. Food and Drug Administration
[2] Pending abstract acceptance

IFx-2.0: Mechanism of Action

Making a Tumor Look Like a Bacterium

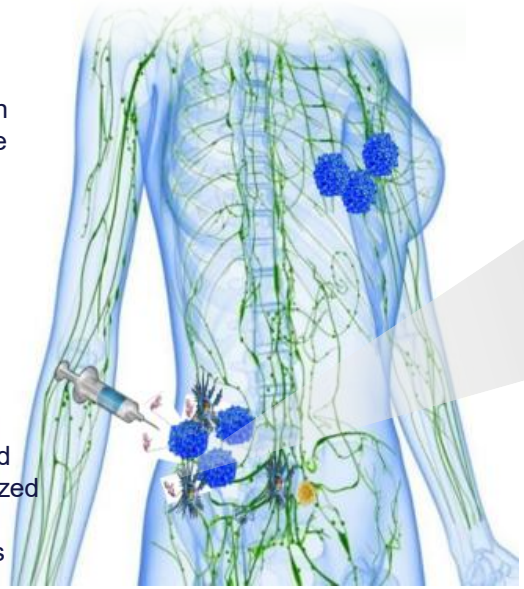
Initiate an Innate Immune Response

1

Intra-tumoral injection of pDNA results in expression bacterial protein on surface of tumor – making tumor look like a bacterium

2

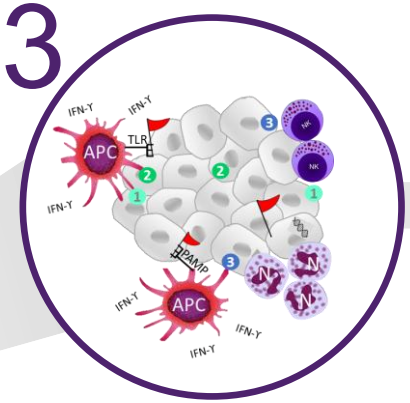
Molecular patterns on bacterial protein conserved through evolution, recognized by pattern recognition receptors (TLR2) on APCs



Activate Tumor Specific T Cells

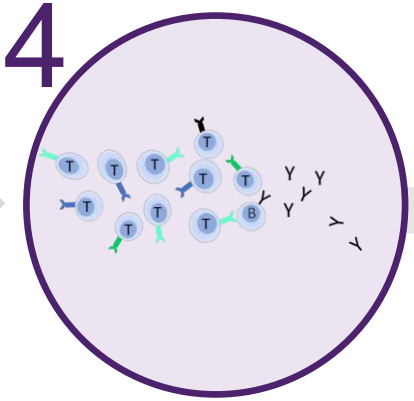
Allows CPI to work where they previously failed

3



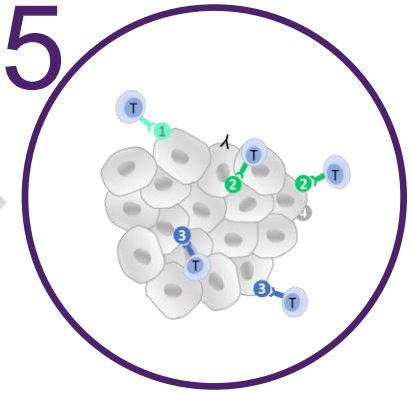
APCs 'ingest" intact tumor cell, package and present all tumor neoantigens to B and T cells leading to activation of tumor specific B and T cells (1^0 epitope spreading)

4



Tumor-reactive T and B cell activation, amplification, trafficking and antibody production (adaptive response)

5



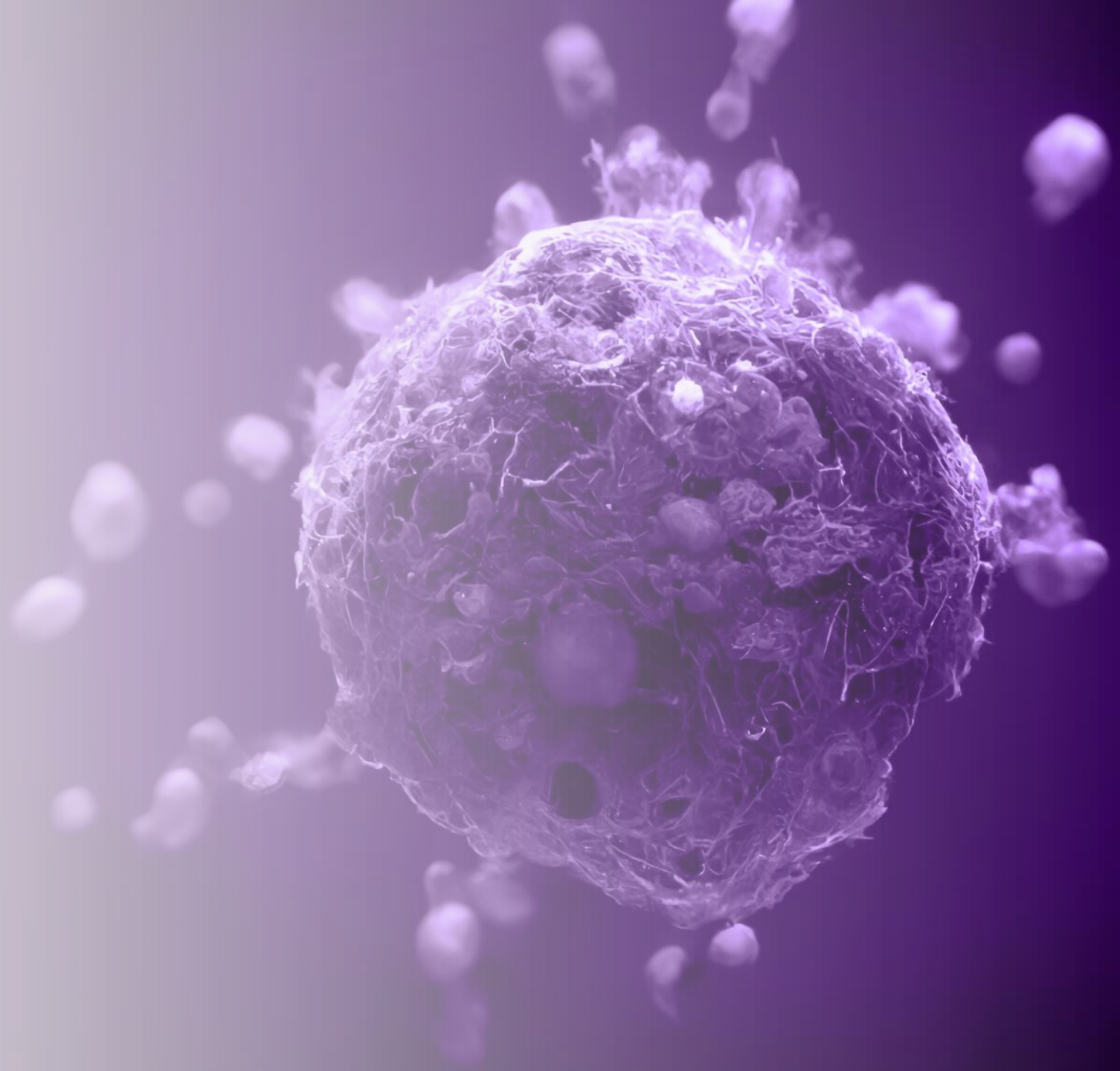
Tumor-specific T cell killing and release of "new / different" tumor antigens (2^o epitope spreading)

Presenting full complement of neoantigens from intact tumor cell provides optimal neoantigen presentation and inter-antigenic epitope spreading more effectively than Oncolytic Viral or Individual Neoantigen Therapy approaches.

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Merkel Cell Carcinoma

A rare and aggressive skin cancer



Merkel Cell Carcinoma (MCC)

Merkel Cell is an aggressive rare type of skin cancer that can progress rapidly and spread early

~3,800 new cases diagnosed / year

25% with local disease receive adjuvant CPI with curative intent

75% have advanced/metastatic disease receive Keytruda 1st line standard of care

50% of patients do not respond to first-line therapy

No approved therapies for patients who fail 1st line therapy

Advanced Metastatic Merkel Cell Carcinoma

50% of Patients Don’t Respond to 1st Line Keytruda®

Probability of disease progression at two years is 26%, 57% and 100% for those with CR, PR and SD, respectively

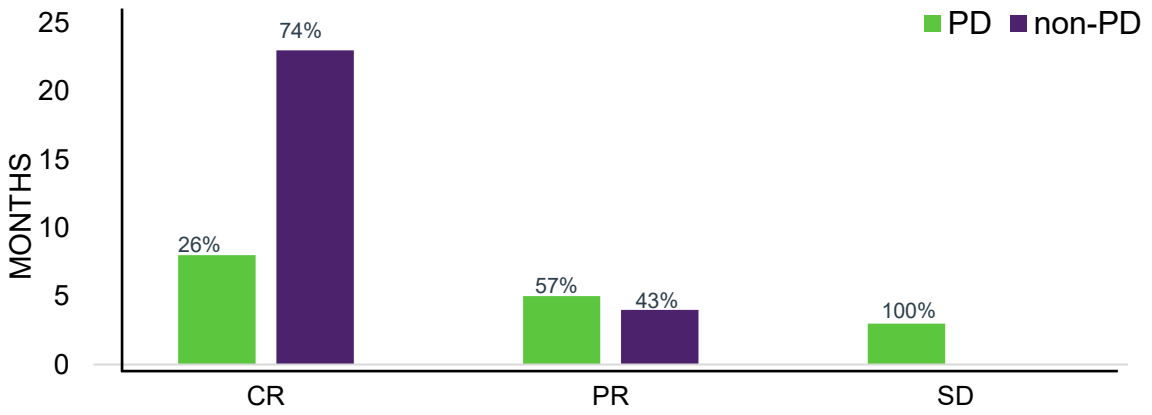


Figure 1. Rate of PD based on best ICI response

Increasing Keytruda’s Response Rate in first-line MCC is an attractive commercial opportunity

- Establishes a new Standard of Care
- Represents an attractive commercial opportunity
- Addressable market size ~3,000 patients

Sources: N Engl J Med 2016; 374:2542-2552 DOI: 10.1056/NEJMoa1603702 *DelveInsight Merkel Cell Carcinoma (MCC) -- Market Insight, Epidemiology, and Market Forecast – 2034

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IFx-2.0 Technology

Innate Immune Agonists

Designed to Overcome Primary Resistance to Checkpoint Inhibitors



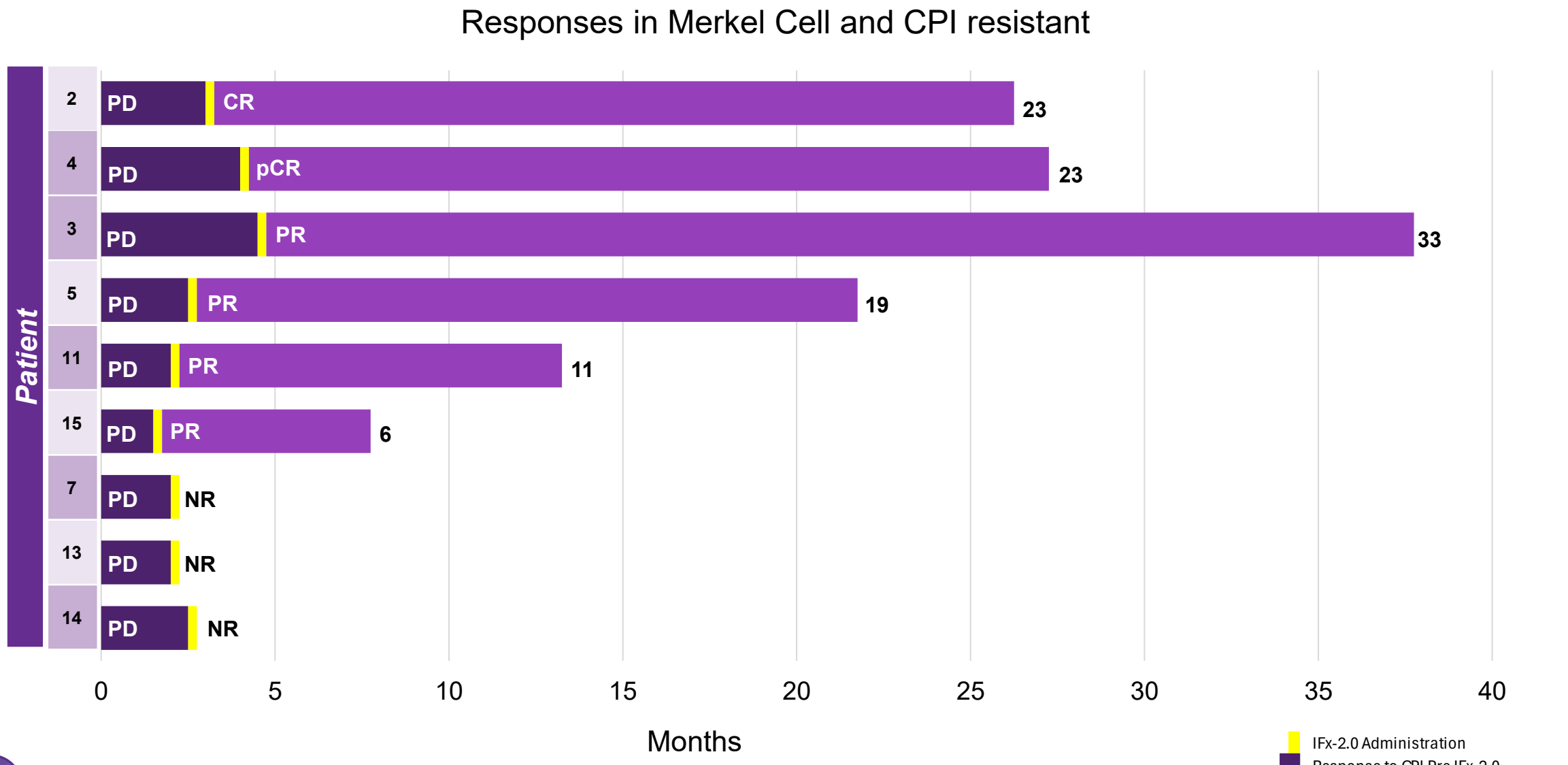
Phase 1b Study of IFx-2.0 in Advanced Skin Cancer

In Merkel Cell Carcinoma (MCC) and Cutaneous Squamous Cell Carcinoma (cSCC)

Trial Design

Design	Two-Stage Trial Design
Endpoint	Safety and feasibility of repeated dosing of IFx-2.0
Number of Patients	n=23 (13=MCC; 10=SCC)
Dose and Schedule	3+3 trial design using a fixed dose of IFx-2.0 • Cohort 1 = single dose • Cohort 2 = 2 doses, 1 week apart • Cohort 3 = 3 doses, weekly for 3 weeks

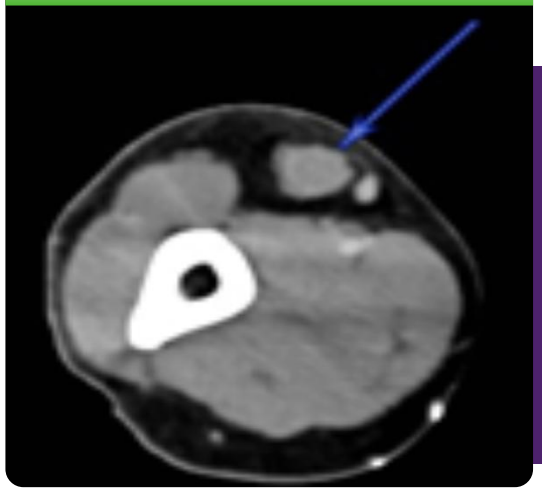
Phase 1b Results: Encouraging and Durable Responses



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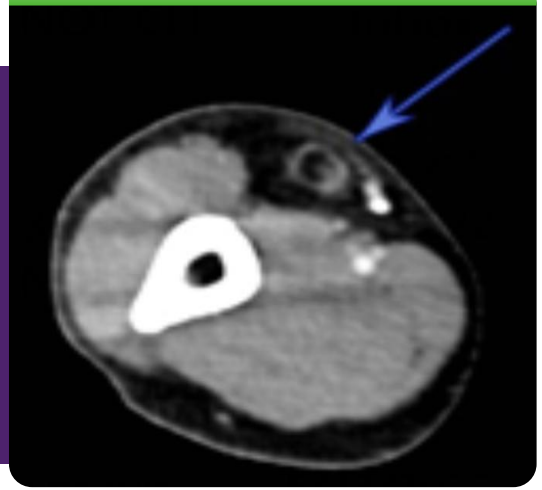
Phase 1b Results: IFx-2.0 Overcomes 1^0 Resistance in MCC

Keytruda®



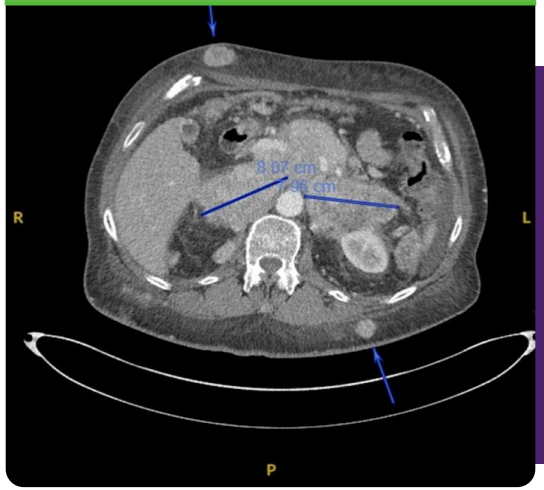
Progressed through 3 months of Keytruda® (pembrolizumab). Large sub-dermal metastatic deposit IFx-2.0 weekly x2 injected into dermal lesions (blue arrows)

Keytruda® + IFx-2.0



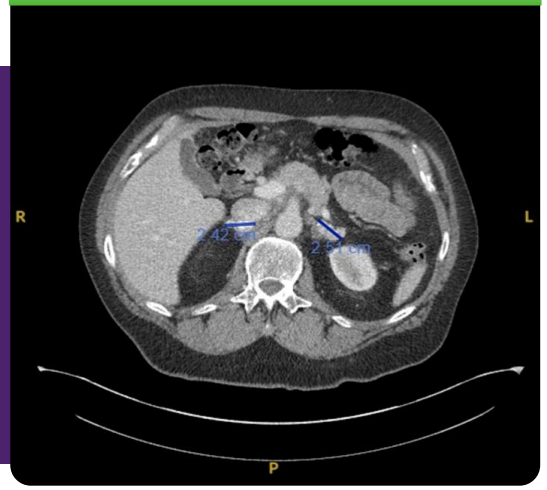
Post IFx-2.0 Keytruda® (pembrolizumab) rechallenge. Cavitation of lesion radiographically a PR when excised demonstrated necrotic tissue, no tumor; re-classified as pathologic CR. Response ongoing 23+ months

Keytruda®



Progressed through 2 months of Keytruda®. Large bulky abdominal masses (blue) IFx-2.0 weekly x2 injected into dermal lesions (blue arrows)

Keytruda® + IFx-2.0



Post IFx-2.0 rechallenged with checkpoint inhibitor, Bavencio ® (avelumab). Complete disappearance of subcutaneous nodules and ~80% reduction (Partial Response) in abdominal masses. Responses are ongoing 19+ months

IFx-2.0 plus Keytruda demonstrated durable CRs and PRs in resistant MCC

Phase 3 Trial: Single Accelerated Approval Trial with SPA

1st line CPI naïve, advanced/metastatic MCC
1:1 Randomization, Placebo, Injection Controlled Trial

Enrolling ~118 patients	IFx-2.0 weekly x 3 + pembrolizumab VS pembrolizumab + placebo	21 of 25 U.S. clinical centers initiated, screening, enrolling patients

Designed with OCE[1] – Utilized Project Front Runner Initiative

SPA Agreement with FDA

- Moved to 1st line indication after reviewing 2nd line results
- ORR allows for potential accelerated approval
- PFS converts accelerated to potential full approval
- Would satisfy requirement for confirmatory trial

Primary Endpoint

Overall Response Rate (ORR)

Key Secondary Endpoint

Progression Free Survival (PFS)

Stepwise hierarchal design preserves alpha allocation)

Study Timeline:

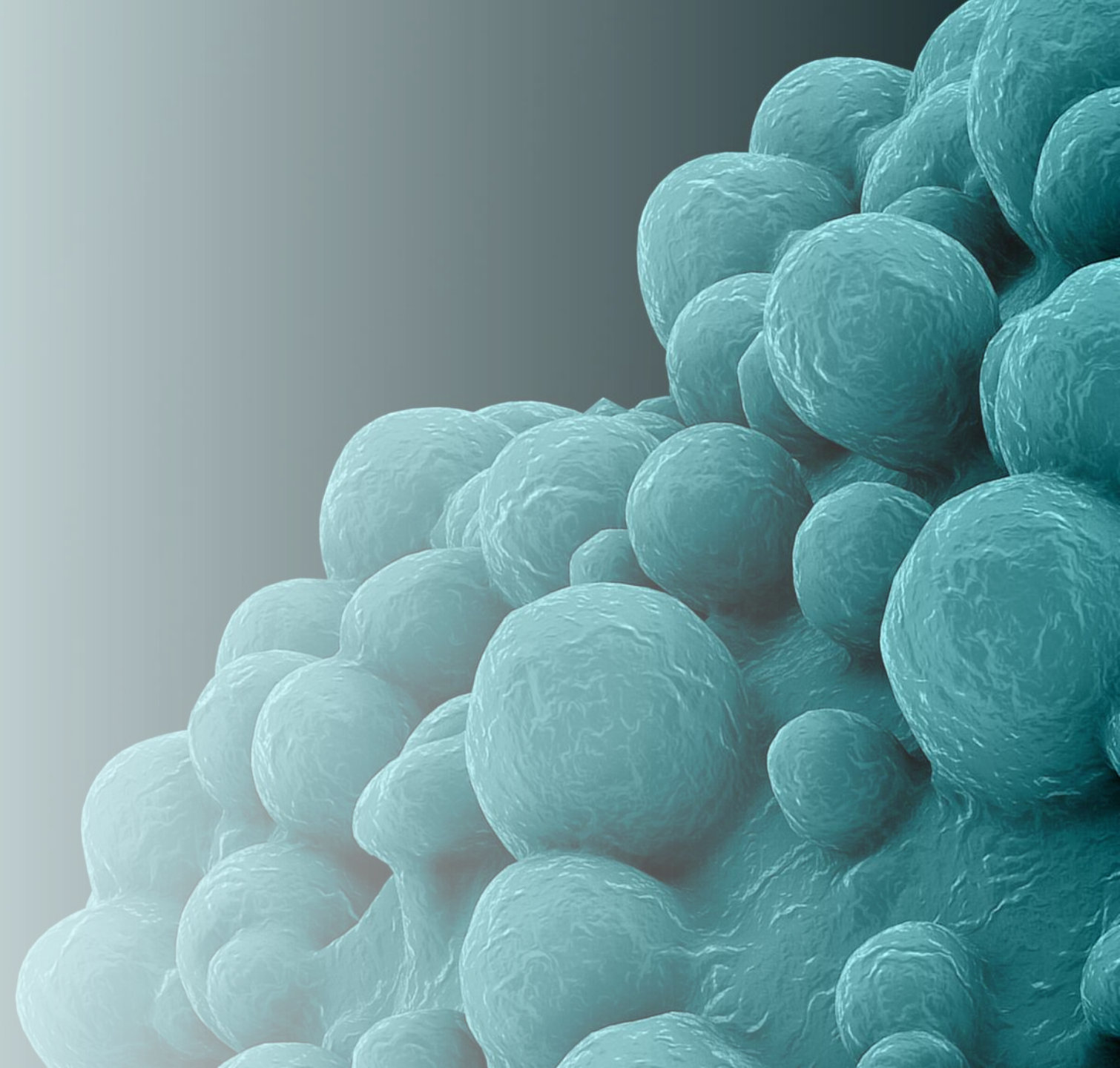


FPI – first patient in LPI - last patient in TLR - topline results

[1]Oncology Center of Excellence

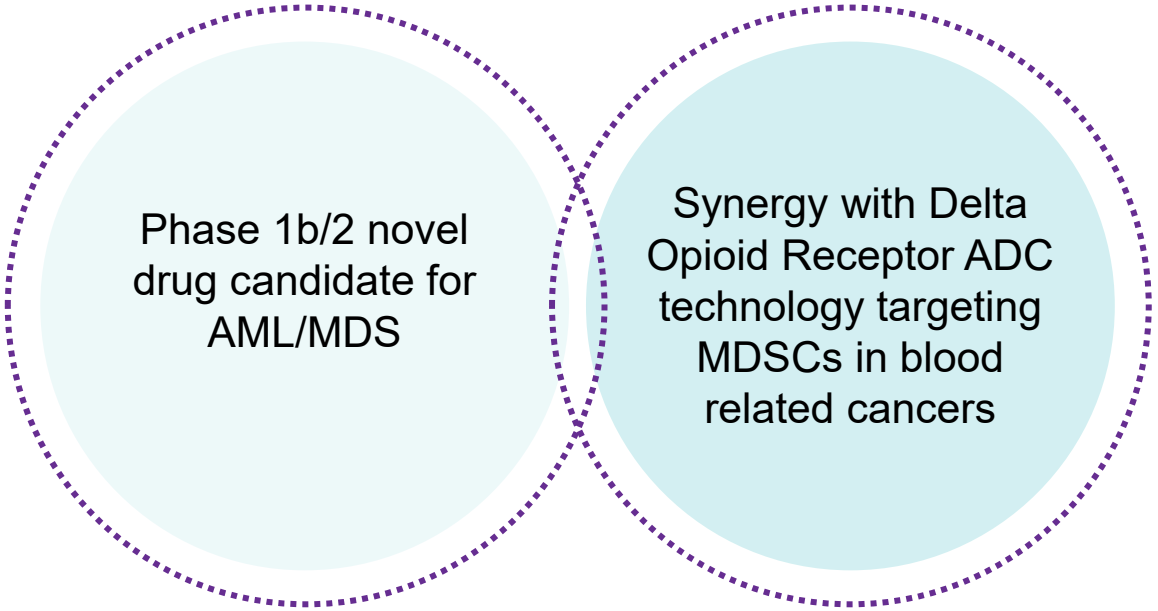
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TBS-2025 VISTA Inhibiting mAb



Targeting VISTA: a new checkpoint target in AML, MDS

Strategic Focus and Technology Synergies



Broad Potential in Blood Related Malignancies

VISTA is a novel negative checkpoint highly expressed on:

- Myeloid Derived Suppressor Cells (MDSCs)
- Quiescent T Cells – VISTA maintains resting state, preventing activation
- Leukemic blasts (NPM1, FLT3 mutated AML)

VISTA plays a central role in therapy failure and relapse in both AML and MDS

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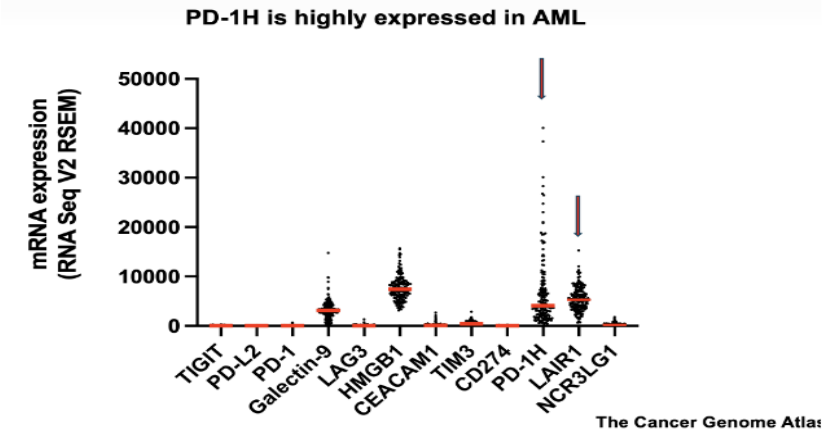
* Formerly KVA12123

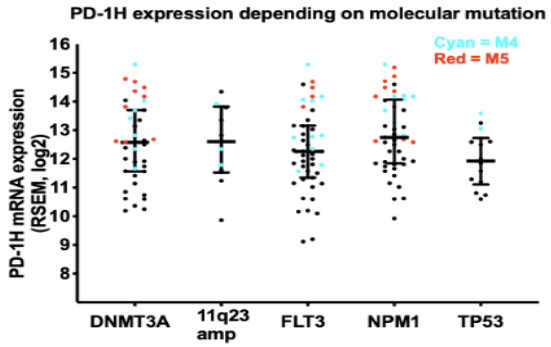
TBS-2025: A Novel VISTA Inhibitor

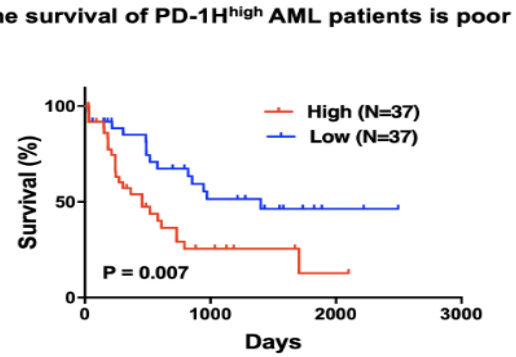
Strong Scientific Rational for VISTA in AML

- Only checkpoint highly expressed in AML
- Expression driven by most common mutations in AML (*NPM1, FLT-3)*
- Presence on leukemic blast in patients correlates with poor survival
- Suppression of T cell activity by VISTA on leukemic blasts results in immune evasion
- Blocking or gene editing VISTA improves survival in humanized models of *mutNPM1* AML

AML patient data sets







The Cancer Genome Atlas

Kim *et al*, J Clin Invest, 2024

Kim *et al*, J Clin Invest, 2024

TBS-2025: Development Plan for VISTA in AML

FDA guidance: r/r AML with no effective or approved therapies

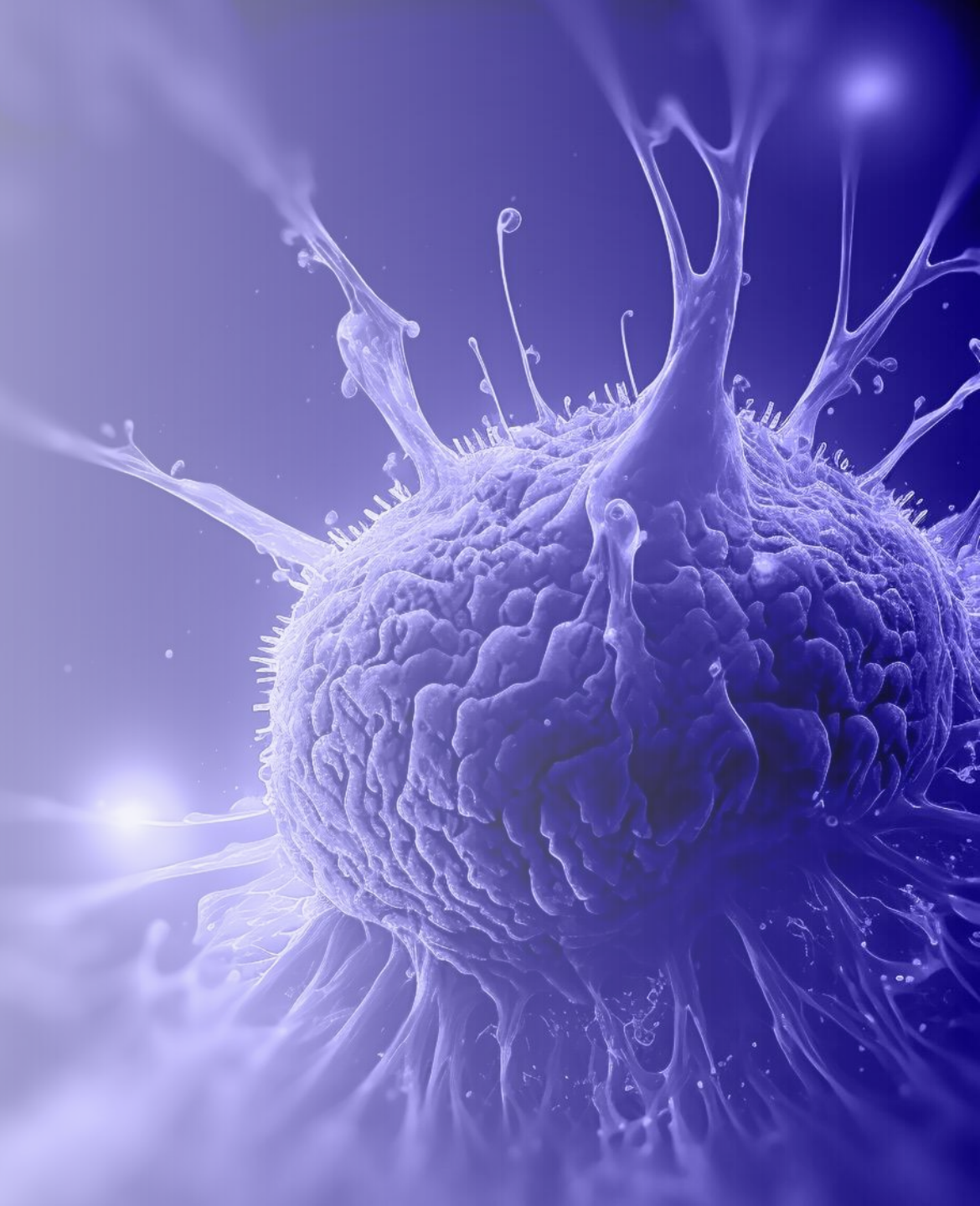
Phase 1b *mut*NPM1 r/r AML:	**Abbreviated BOIN* dose escalation for PK and RPD2** • 75% of patients don't respond to or relapse following menin inhibitors • Represents an unmet medical need patient population • *Potential for accelerated approval development pathway if MLFS** or better responses*
Phase 2: *mut*NPM1 r/r AML	• *Dose optimization stage* • *Combination with menin inhibitors*
Trial initiation:	2H 2026
Preliminary data	1H 2027

*Bayesian Optimal Interval design
**Morphogenic Leukemia Free State

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Bi-Specific, Bi-Functional Antibody Drug Conjugates ADCs

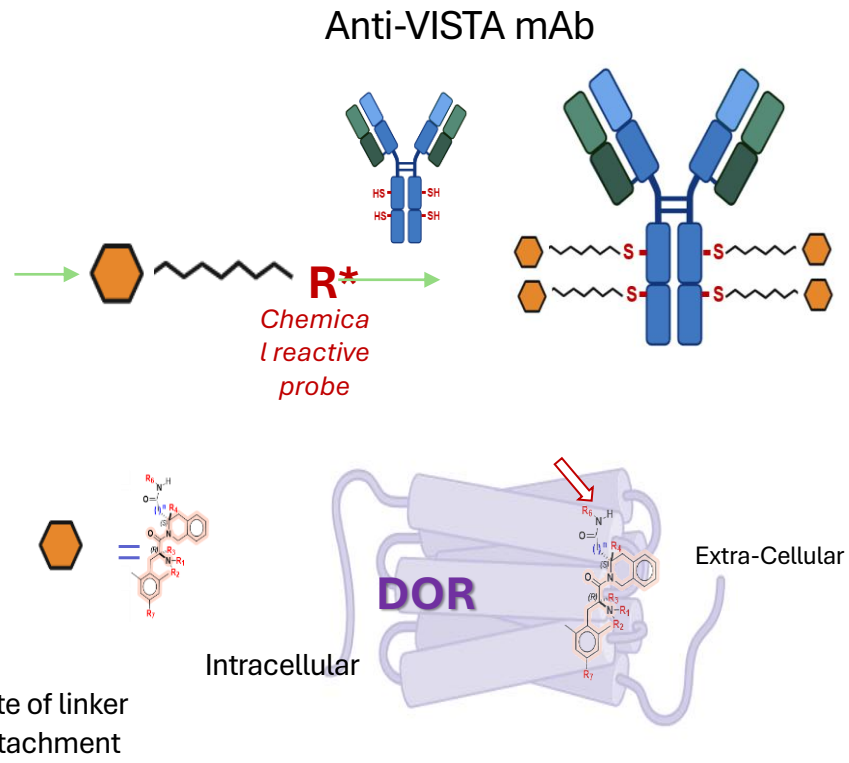
First in class immune modulating ADCs targeting MDSCs and Tregs



We Are Developing a First-in-Class Immune Modulating Bi-functional, Bi-specific Antibody Drug Conjugates (ADC)

Targeting MDSCs, to overcome acquired resistance to cancer immunotherapies

- Non tumor targeting, non internalizing, non cytotoxic or cell cycle targeting payloads
- *Bi-specific*:
  - **Targets both Delta Opioid Receptor (DOR) and VISTA receptor on MDSCs, M2 macrophages**
- *Bi-functional:*
  - ***Antibody:*** **TBS-2025 targets VISTA** on immune suppressing cells and quiescent T cells allowing activation
  - **Drug : HURA 101*inhibits DOR** on MDSCs, M2 removing their immune suppressing capabilities



*HURA-101 test agent

Delta Opioid Receptor controls the expression of multiple immune suppressing genes in MDSCs, Tregs

A DOR-VISTA antagonist ADC is an ideal therapeutic candidate for blood related cancers

MDSCs

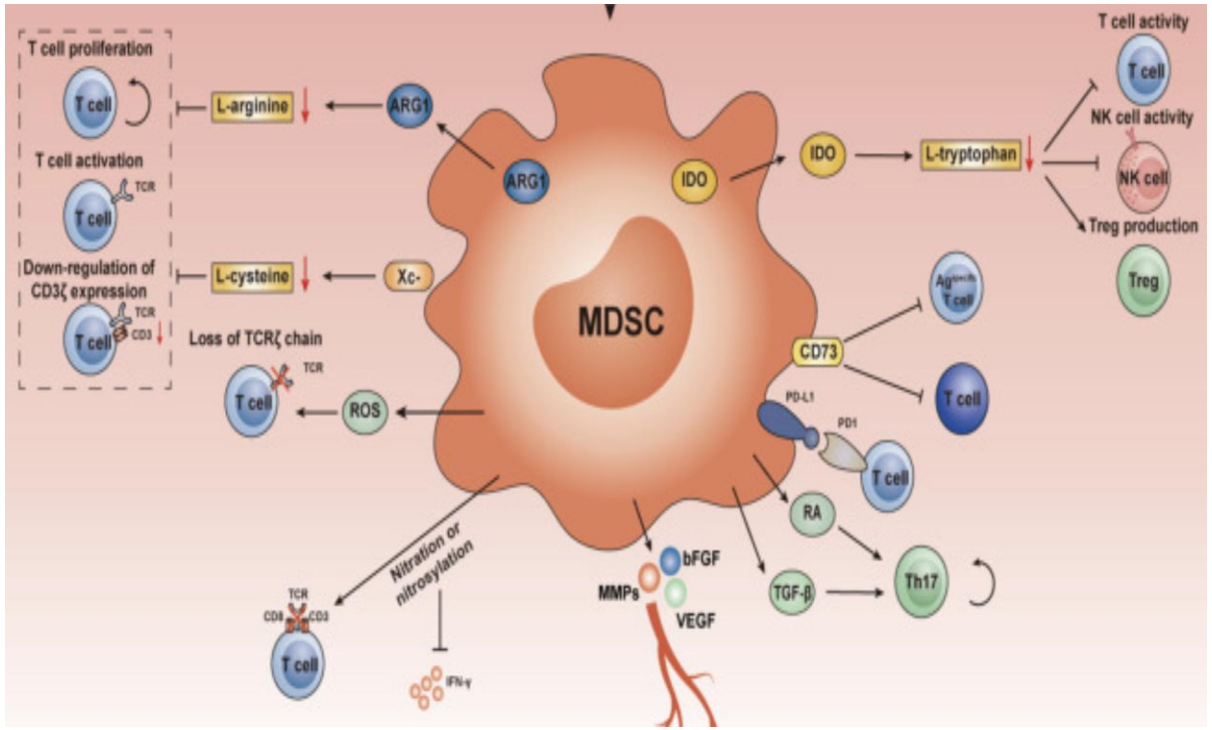
- Produce a cascade of immune suppressing factors (iNOS, COX2, IDO)
- Attract other immune suppressing cells Tregs

Blocking DOR inhibits immune suppressing, chemotactic and immuno-metabolic genes

VISTA expression is also high on both MDSCs and M2 macrophages

Presence of MDSCs and VISTA two worst prognostic factors in both AML and MDS

Provides translational scientific rationale for investigation in AML and MDS



Upcoming Milestone Targets

	2026		2027	
	1H 2026	2H 2026	1H 2027	2H 2027
IFx-2.0 Innate Immune Agonist		Orphan Drug Designation MCC	Results IR study IFx-2.0 with Keytruda® For deep seated MCC	Complete Enrollment in Ph3 IFx-2.0 study
TBS-2025 VISTA Inhibiting mAb	Supportive FDA feedback on development plan in molecularly defined subsets AML Ph 1b/2 trial	Orphan Drug Designation AML Initiate from Ph 1b/2 trial VISTA in mut NPM1 r/r AML	VISTA in mut NPM1 r/r AML Preliminary safety and response data	
MDSC Inhibitors Bi-specific ADCs		In-vivo Proof of Concept in AML Scientific Meeting Presentations		

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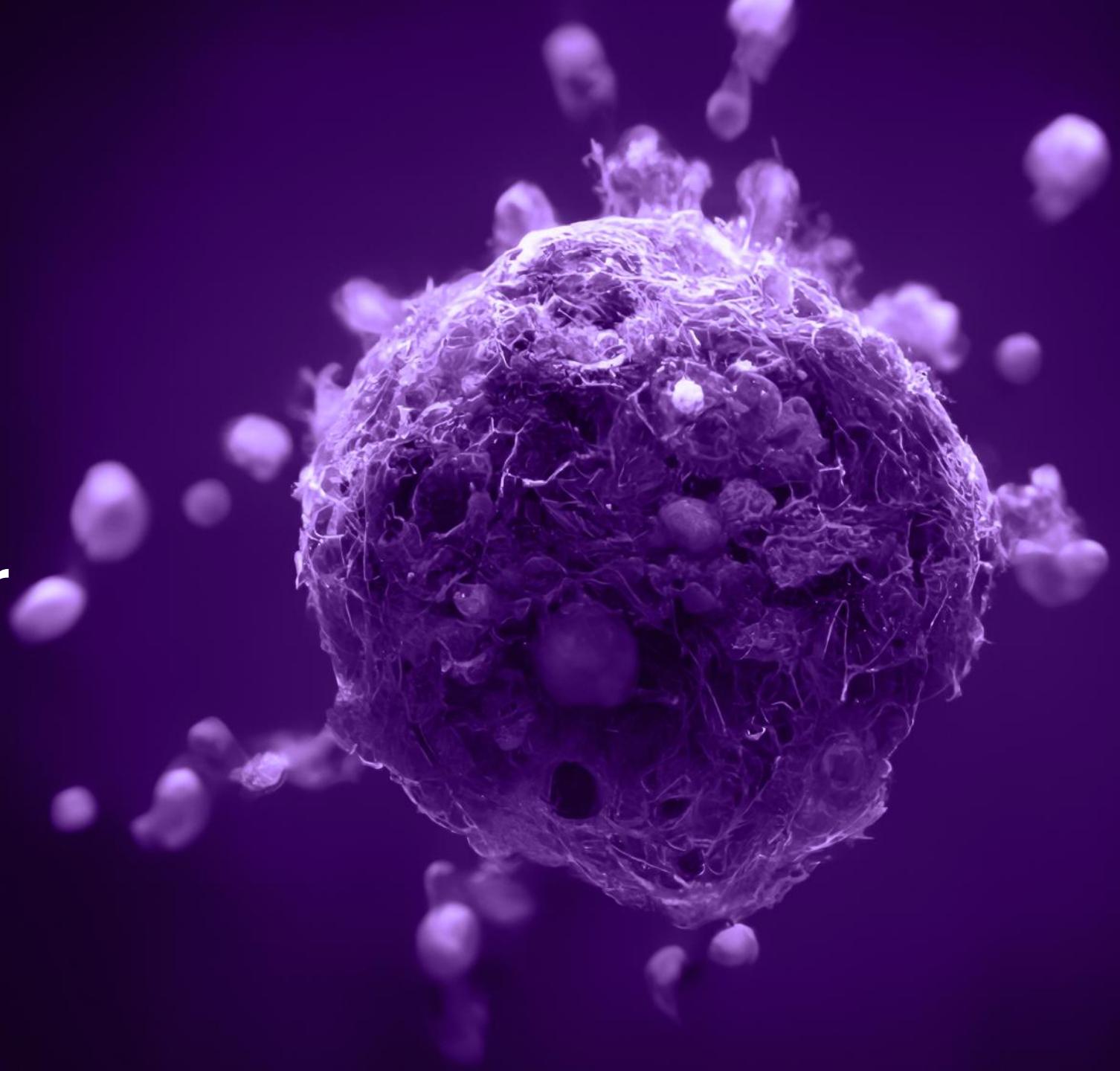
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