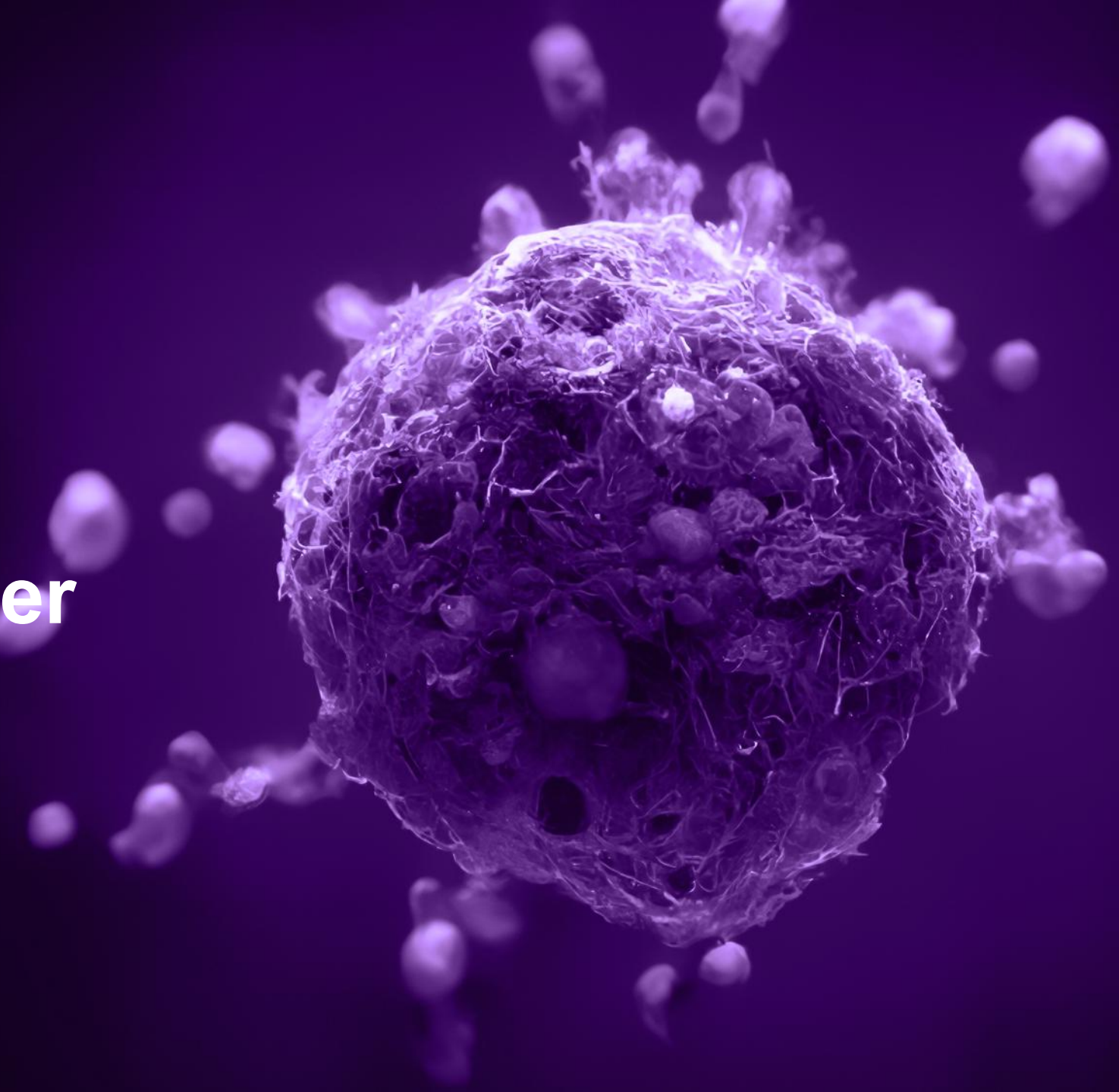
TuHURA biosciences

Overcoming Resistance to Cancer Immunotherapy

May 2026



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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

$50 Million Credit Facility & Royalty Transaction

Non-equity $50mm facility to fund all upcoming program milestones through IFx-2.0 Phase 3 Results

- **Provides Optionality**:
  - Capital market independence and into 2028
  - TuHURA controls amounts of monthly draws if any and retains ability to access capital markets at more attractive valuations
- **Favorable Terms**: Interest only for 5 years @ 12% only on drawn amounts
- **Commitment Fee:** 10% in shares at $2.662 - subject to shareholder approval (otherwise $5mm in cash)
- **Annual Fee:** 1.5% in cash
- **Royalty:** IFx-2.0 sales only, low to mid single digit range up to $450mm annual sales
- **Lender Friendly:** TuHURA's largest shareholder ($32mm paid-in equity) committed to success
- **Director Appointment Right**: Lender has right to appoint a director upon request

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 ESMO[2]
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

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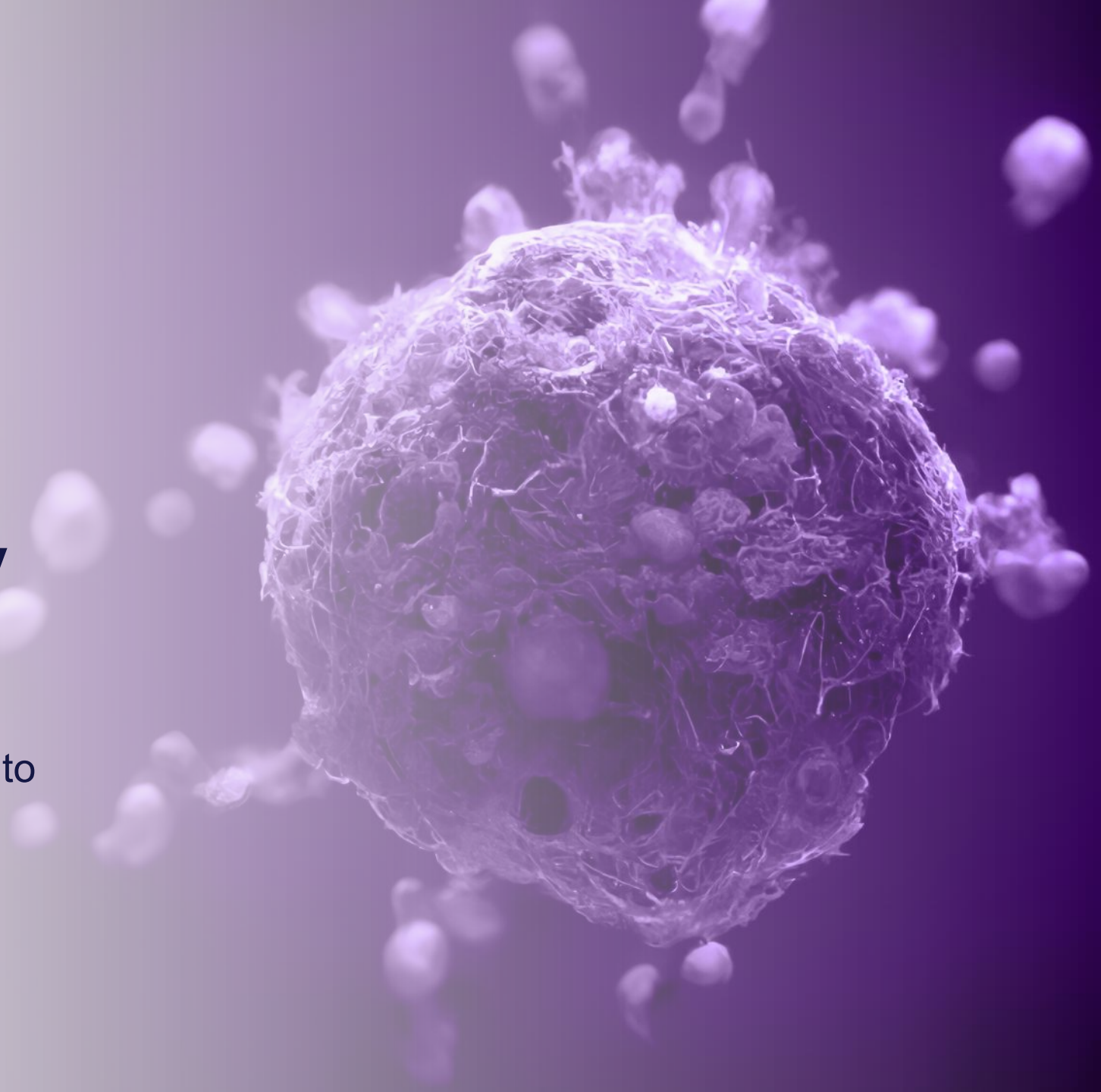
IFx Technology

Innate Immune Agonists

Designed to Overcome Primary Resistance to Checkpoint Inhibitors



IFx-2.0: Mechanism of Action

Making a Tumor Look Like a Bacterium

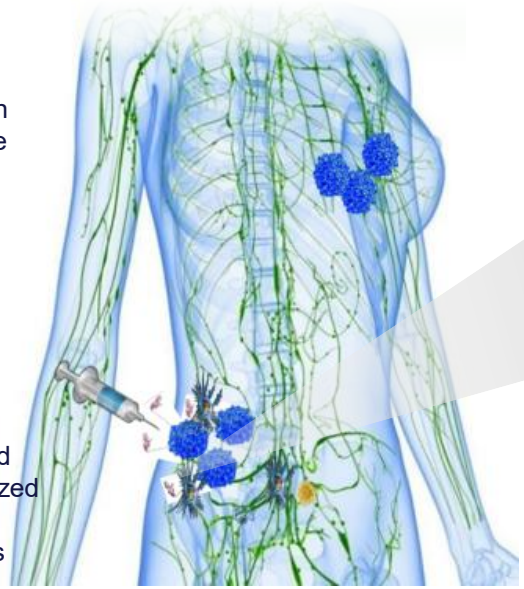
Initiation of an Innate Immune Response

1

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

2

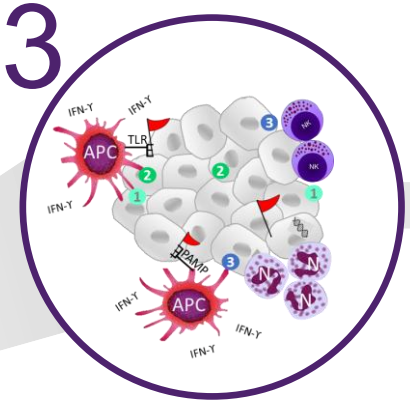
Molecular patterns on bacterial protein conserved through evolution, recognized by pattern recognition receptors (TLR2) on APCs



Activation of Tumor Specific T Cells

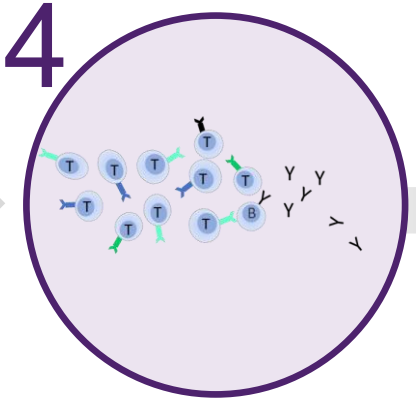
Allows CPI to work where they previously failed

3



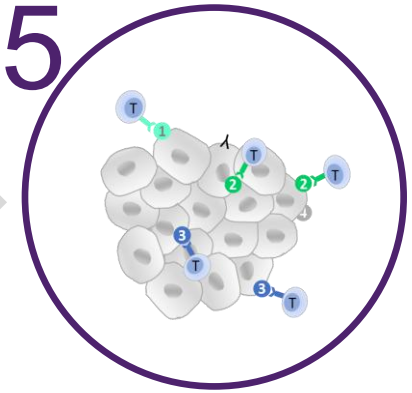
APCs 'ingest" intact tumor cell, package and present all tumor neoantigens to B and T cells leading to activation of tumor specific B and T cells (1^0 epitope spreading)

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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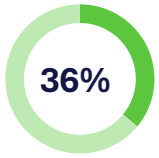
Advanced Metastatic Merkel Cell Carcinoma

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

Keytruda® (pembrolizumab) is the 1st line standard of care for advanced metastatic MCC

Complete Response *(CR) rate*



Partial Response *(PR) rate*

Progressive Disease *(PD) rate*

Increasing Keytruda's Response Rate in 1L metastatic MCC is an attractive commercial opportunity

Addressable Market Size (2025-2034)

~8,167 to ~15,262 patients

US, EU4, UK*

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

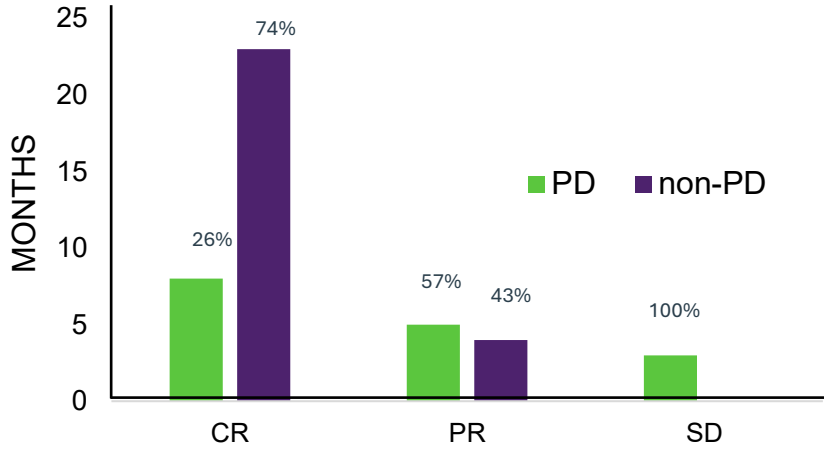


Figure 1. Rate of PD based on best ICI response

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

Phase 1b Study in Advanced Skin Cancer

(Merkel Cell and Cutaneous Squamous Cell Carcinoma)

Enrolled n=23

(13 MCC, 10 SCC)

Safety Evaluable (n=21) TRAEs

Grade 1 35% (8)

Grade 3 4% (1)

Dose and Schedule Selected:

1-3 lesions, Weekly x 3

Response Evaluable MCC (n=9)

1^0 CPI resistance, no Rx between 1st line and IFx-2.0

Best Overall Response 66%

3 CR (includes 1 pCR)

3 PR

Median Duration of Response 21 months

(range 6 – 33; 4 ongoing time of data cut-off)

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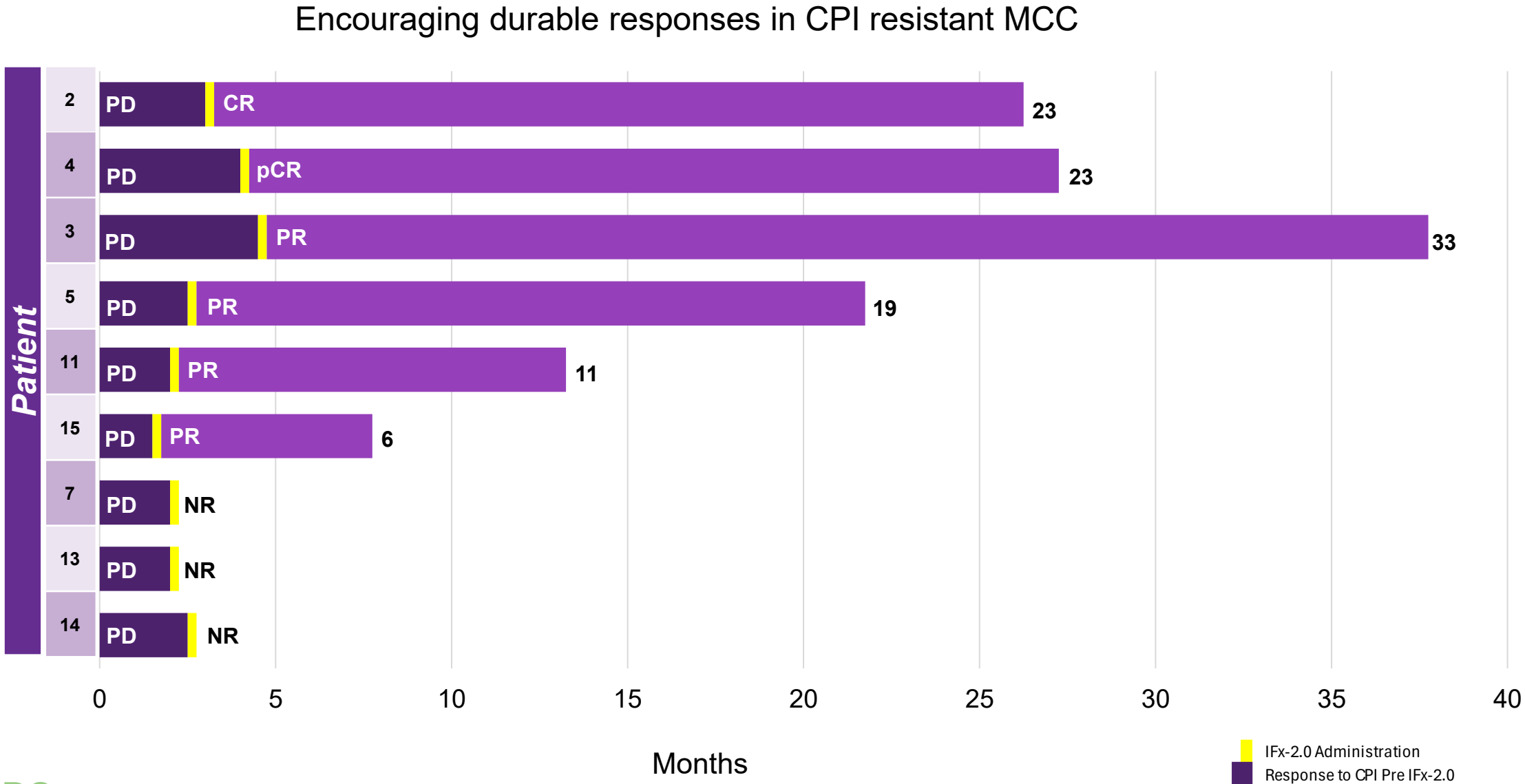
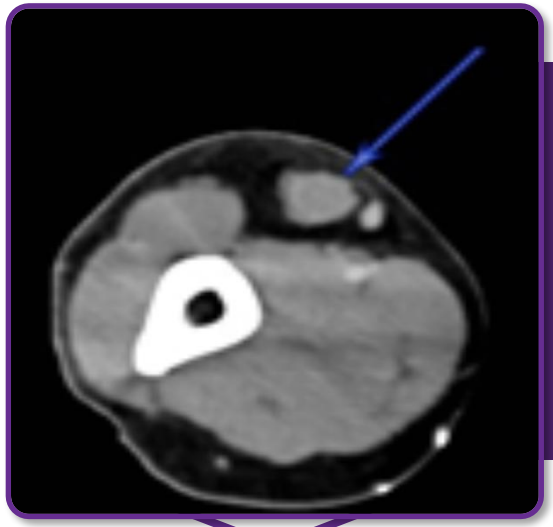
Sources: N Engl J Med 2016; 374:2542-2552 DOI: 10.1056/NEJMoa1603702 *DelveInsight Merkel Cell Carcinoma (MCC) -- Market Insight, Epidemiology, and Market Forecast – 2034

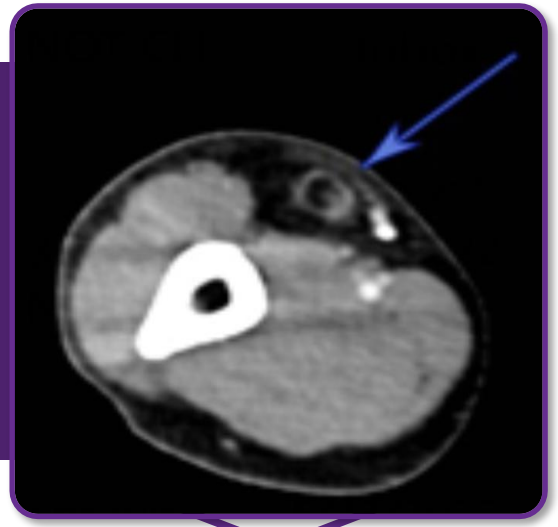
IFx-2.0 Phase 1b Advanced, Metastatic Merkel Cell Carcinoma



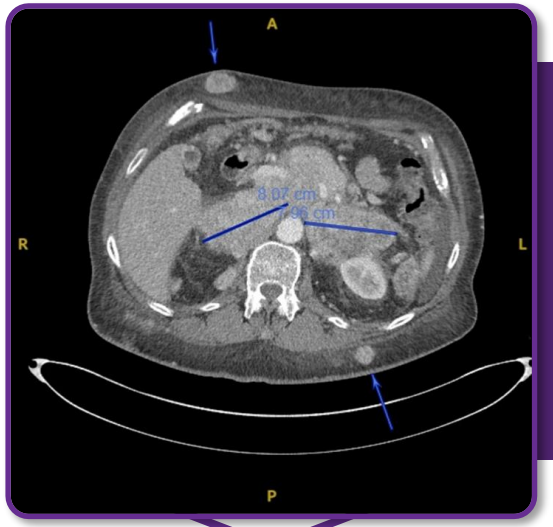
IFx-2.0 Phase 1b Trial in Advanced Metastatic Merkel Cell Carcinoma



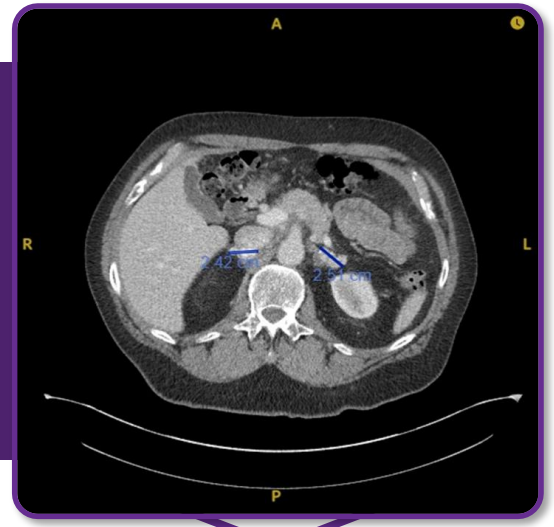
Progressed through 3 months of Keytruda® (pembrolizumab). Large sub-dermal metastatic deposit IFx-2.0 weekly x2 injected into dermal lesions (blue arrows)



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



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



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

Overcomes 1^0 Resistance to Anti-PD-(L)1 Therapy (pembrolizumab or avelumab) in MCC

Single Phase 3 Accelerated Approval Trial

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

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

21of 25 U.S. clinical centers initiated, screening, enrolling patients

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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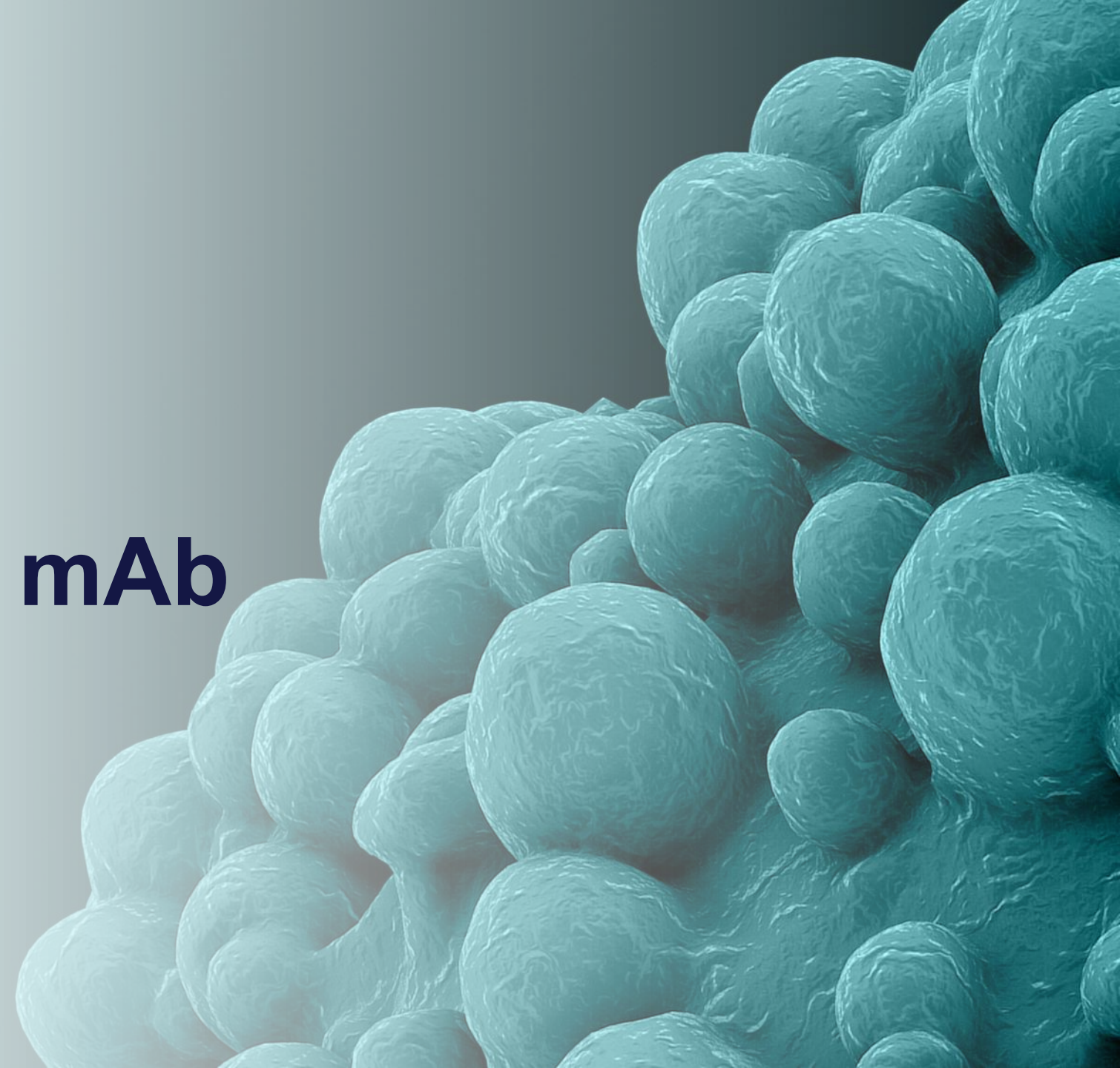
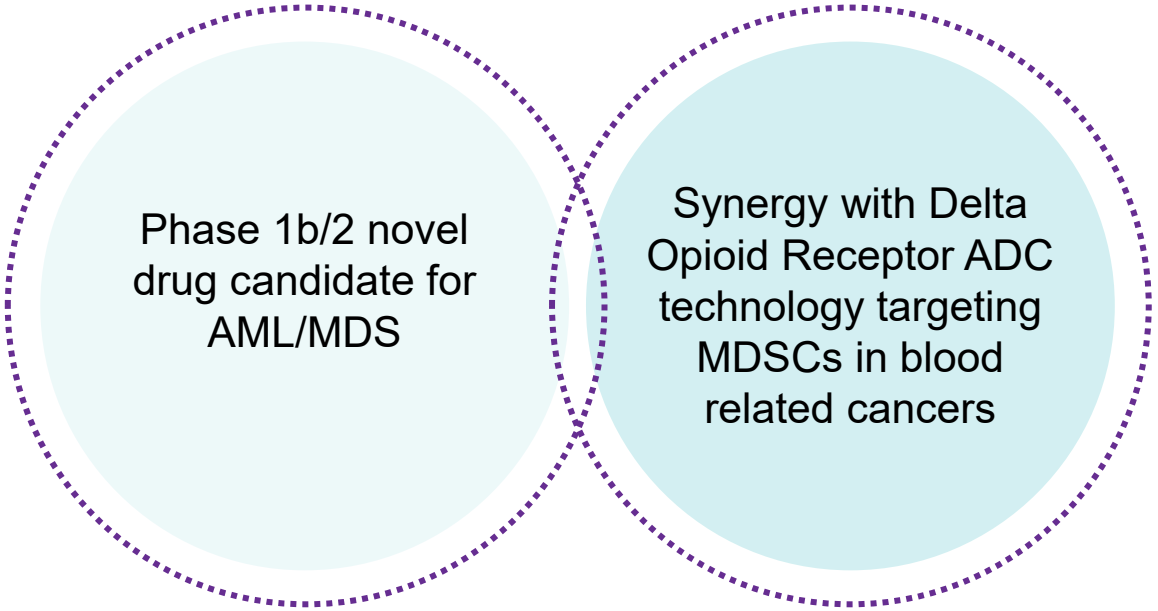
TBS-2025
VISTA Inhibiting mAb



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:

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

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

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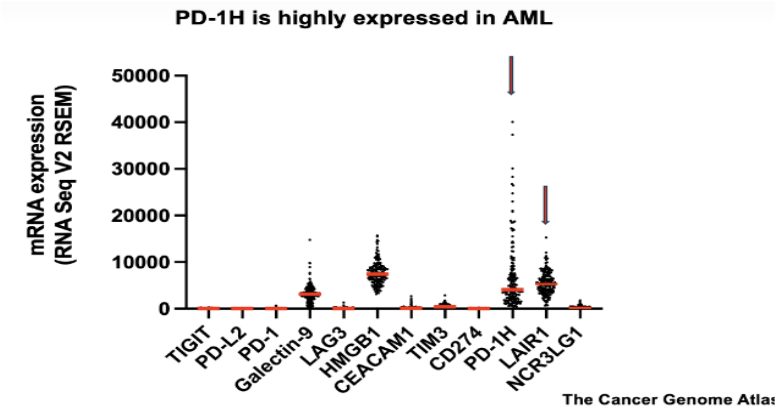
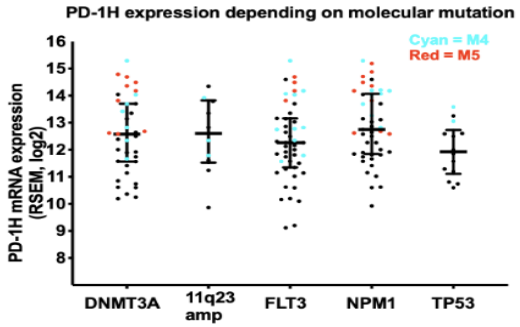
* Formerly KVA12123

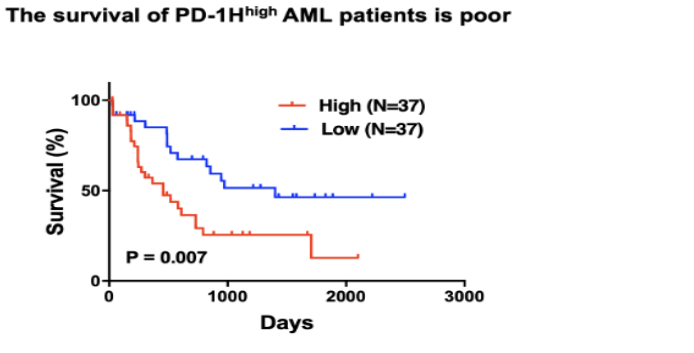
TBS2025: Scientific Rational for VISTA in AML

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 derived data sets

Kim *et al*, J Clin Invest, 2024

Kim *et al*, J Clin Invest, 2024

TBS2025: A novel VISTA inhibiting antibody

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

- **Phase 1b *mut*NPM1 r/r AML:** Abbreviated 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 CR/CR_h results encouraging
- **Phase 2:** RP2D in r/r AML
  - Provides basis for combination with menin inhibitors
- **Planned FDA IND meeting re:** Phase1b/2 development plan – 1H 2026
- **Phase 1b/2 Trial initiation:** 2H 2026

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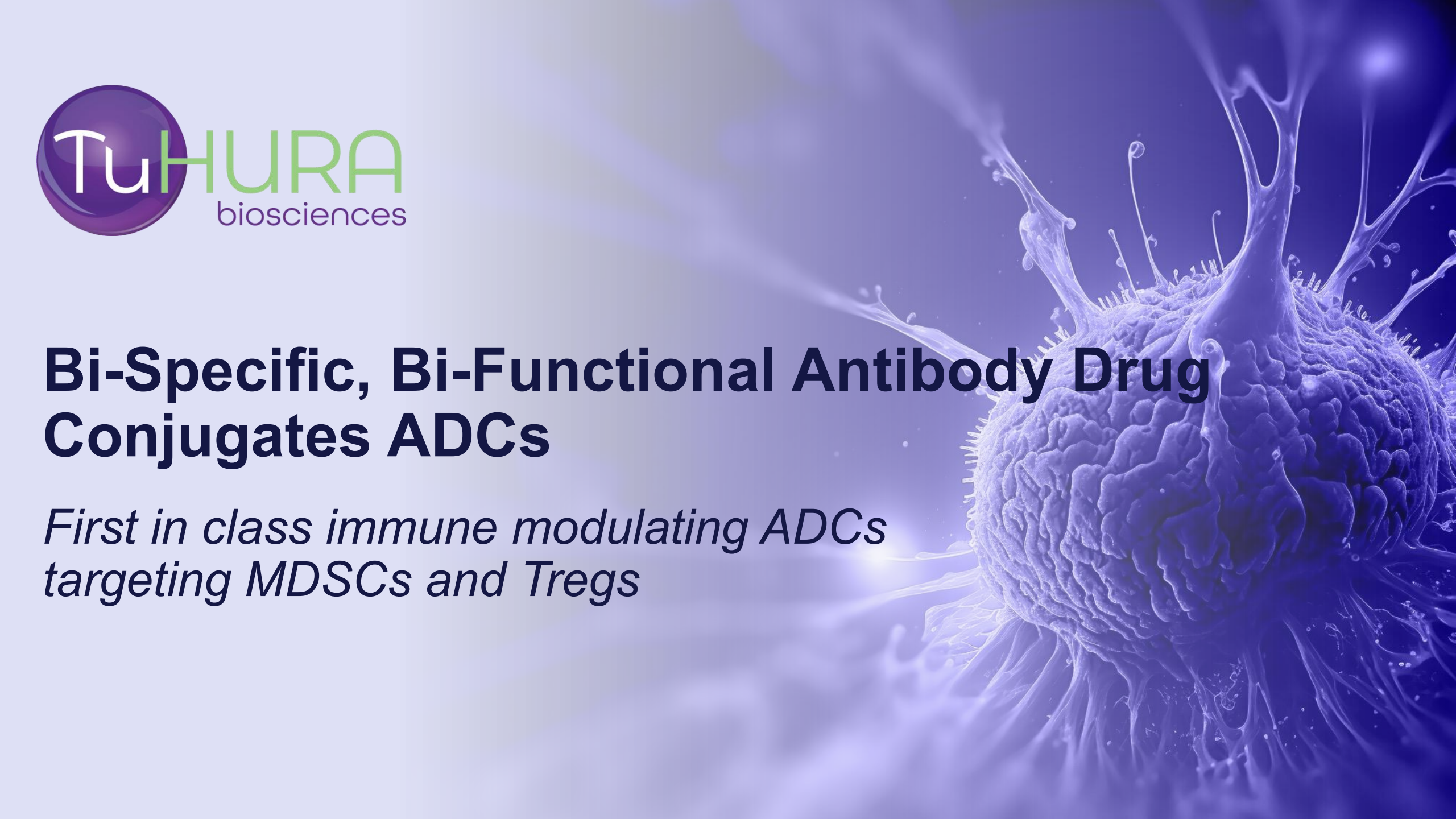
Bi-Specific, Bi-Functional Antibody Drug Conjugates ADCs

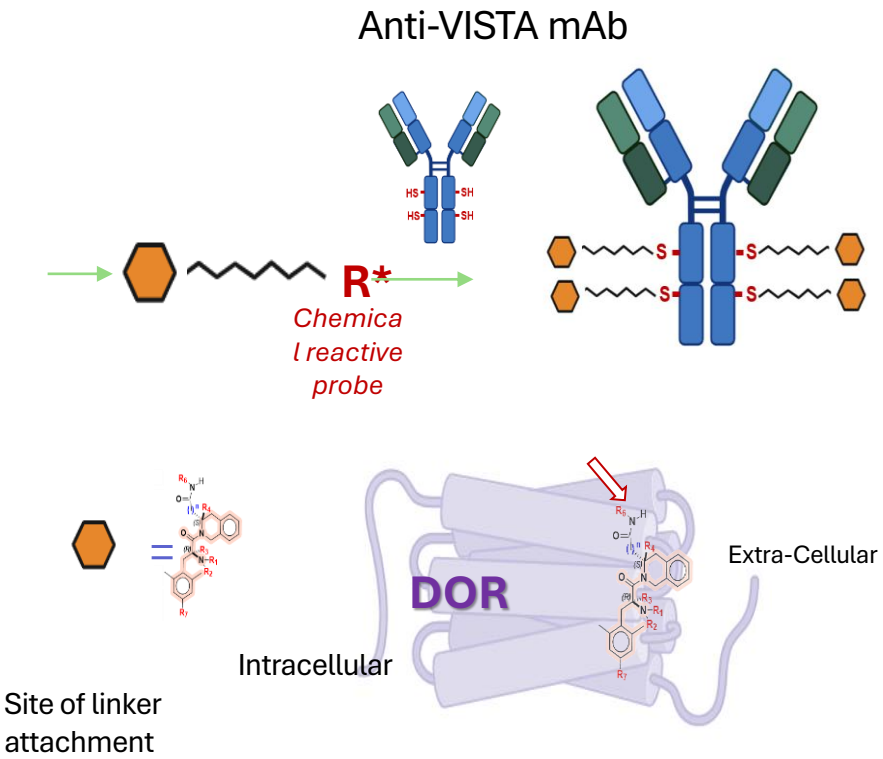
First in class immune modulating ADCs targeting MDSCs and Tregs



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

Targeting MDSCs, Tregs to overcome acquired resistance to cancer immunotherapies

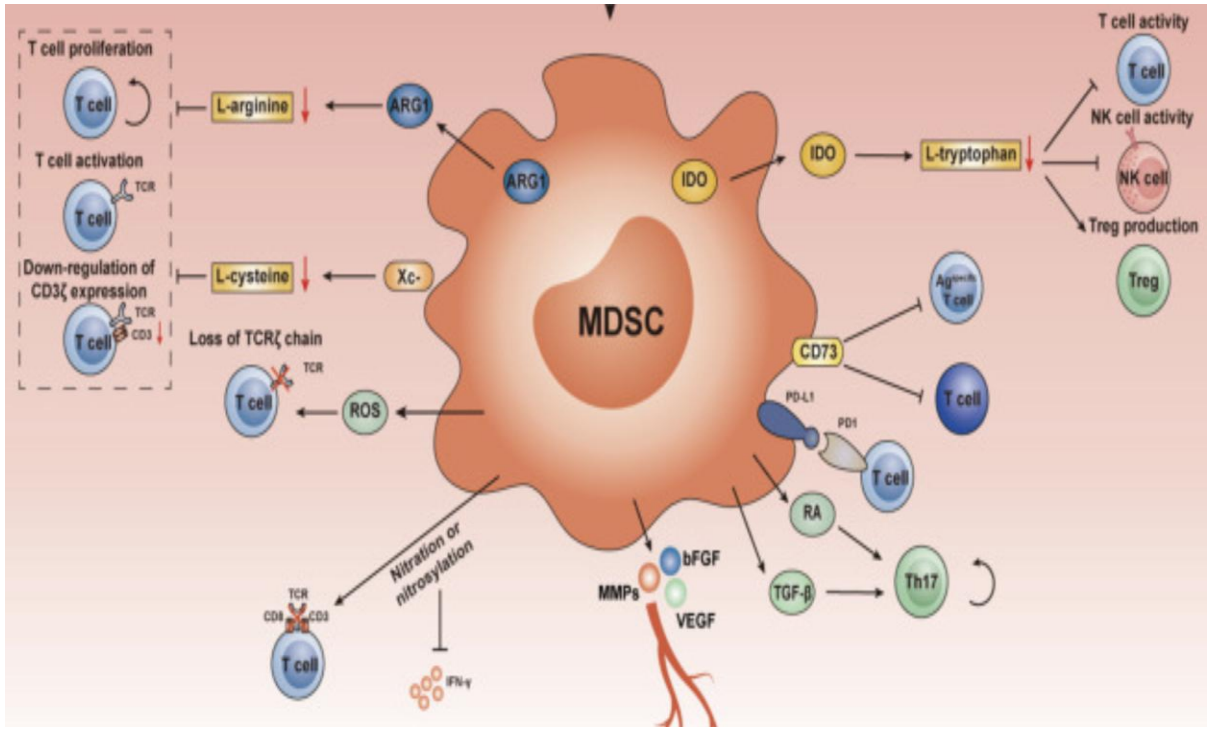
- Non tumor targeting, non internalizing, non cytotoxic or cell cycle targeting payloads
- *Bi-specific*:
  - **Targets both Delta Opioid Receptor (DOR) and VISTA receptor on MDSCs, Tregs**
- *Bi-functional:*
  - ***Antibody:*** **TBS-2025 targets VISTA** on immune suppressing cells and quiescent T cells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



*HURA-101 test agent

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

- MDSCs
  - Produce a cascade of immune suppressing factors (iNOS, COX2, IDO)
  - Attract other immune suppressing cells Tregs
- Blocking DOR inhibits immune suppressing genes
  - MDSCs (iNOS, COX2, ROS)
  - Tregs (FOXP3)
- VISTA expression is also high on both MDSCs and Tregs
- Presence of MDSCs and VISTA two worst prognostic factors in both AML and MDS



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

Upcoming Milestone Targets

	2026		2027	
	1H 2026	2H 2026	1H 2027	2H 2027
IFx-2.0 Innate Immune Agonist	Orphan Drug Designation MCC			Complete Enrollment in Ph3 IFx-2.0 study Top Line Results Ph3 IFx-2.0 study
TBS-2025 VISTA Inhibiting mAb	Planned FDA IND Mtg re development plan Ph 1b/2 trial	Orphan Drug Designation AML Initiate from Ph 1b/2 trial VISTA in mut NPM1 r/r AML		
MDSC Inhibitors Bi-specific ADCs		Select Lead ADC Proof of Concept in AML Scientific Meeting Presentations		

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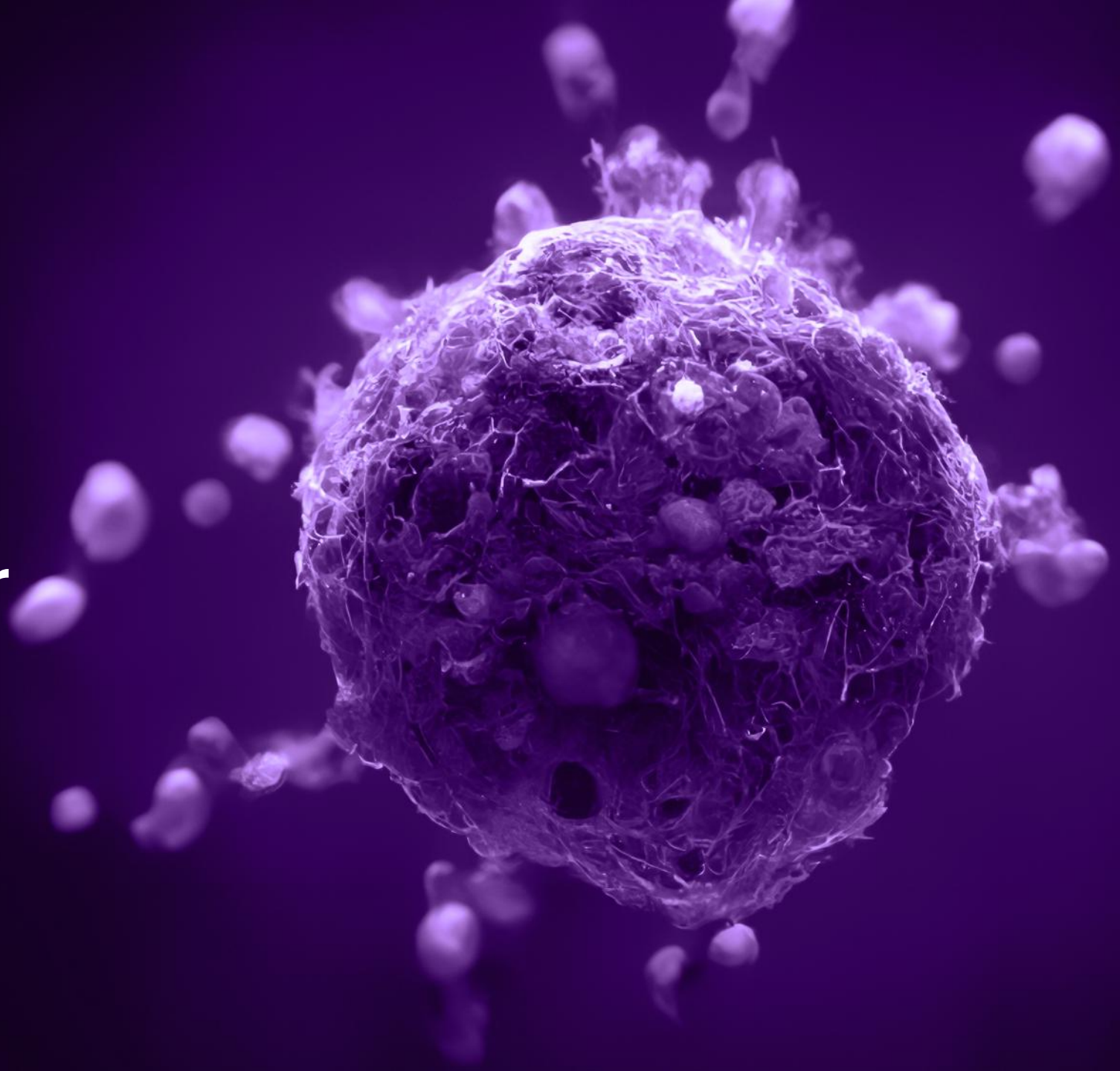

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