



MEDICENNA

Master Cytokine Signaling
Design Tunable Superkines
Nurture Patient Immunome
Aspire to Cure

TSX: MDNA OTCQX: MDNAF

Corporate Overview
March 2026

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MDNA11 – Phase 1/2

*Best-in-Class IL-2 Super Agonist
for Advanced Solid Tumors*

36% ORR MDNA11 monotherapy

43% ORR MDNA11 + pembrolizumab

as 2/3L Tx or next line following resistance to ICI therapy

MDNA113 – IND-enabling

*First-in-Class PD-1 x IL-2 Superkine
for Tumors expressing IL-13R α 2*

Tumor Anchoring & Masking

One of the most exciting areas in immuno-oncology
recently validated by multi-billion-dollar pharma transactions

Bizaxofusp (MDNA55): Phase 3 Ready

*An IL-4R targeted Immuno-toxin
for Recurrent Glioblastoma (rGBM)*

~2x Overall Survival in Deadliest Brain Cancer, rGBM

Median OS ~13.5 months versus ~7.2 months for matched control arm

Multiple recent pharma transactions in brain cancer space

TSX: MDNA | OTCQX: MDNAF

2026 Milestones & Catalysts

MDNA11

- PoC data post 2L/3L therapy
- End of P1 meeting with FDA
- Plan P2 registration study with FDA
- Neoadjuvant melanoma Ph1b data

MDNA113

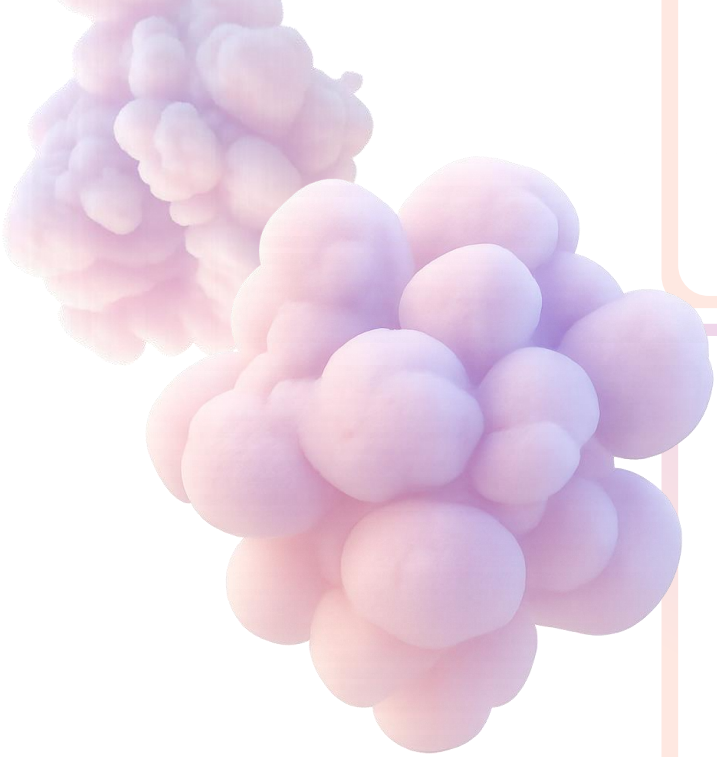
- NHP safety/PK/PD results
- File IND for first-in-human study

Bizaxofusp

- Partnership
- Commence Phase 3 rGBM trial

Funded into Calendar Q3 2026

Medicenna's Engineered IL-2, IL-4, and IL-13 Superkines: A Unified Cytokine Engineering Platform



nature

Levin AM, et al. Nature 2012

Exploiting a natural conformational switch to engineer an interleukin-2 superkine

Immunity

Mitra S, et al. Immunity 2015

Interleukin-2 activity can be fine-tuned with engineered receptor signaling clamps

Science Signaling

Moraga I, et al. Science Signaling 2015

Instructive roles for cytokine–receptor binding parameters in determining signaling and functional potency

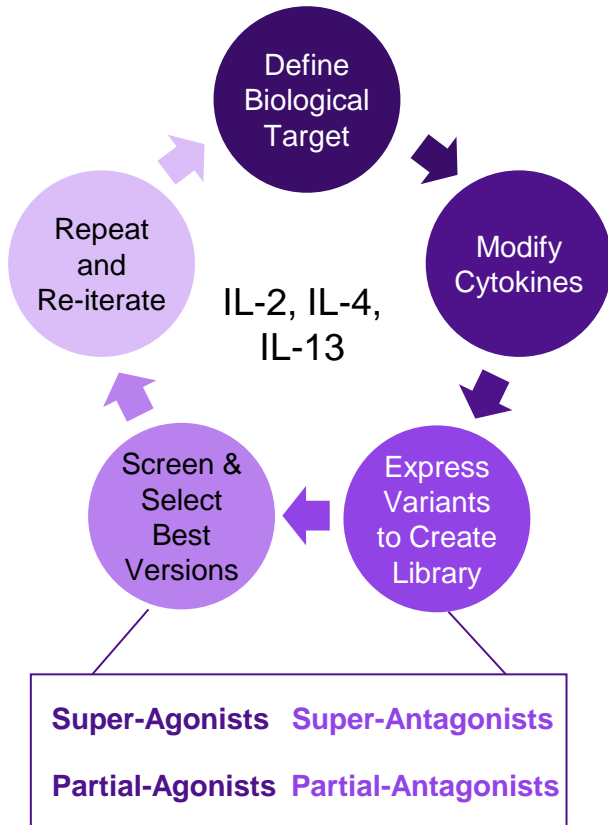
nature chemical biology

Junttila IS, et al. Nature Chem. Biol. 2012

Redirecting cell-type–specific cytokine responses with engineered interleukin-4 superkines

Medicenna's Directed Evolution Engine Delivers Differentiated Platforms to Immunotherapy

Directed Evolution



Superkine™ Platform

- Improved affinity and specificity
- Tuned pathway signaling, cellular response and cell fate

BiSKIT™ Platform

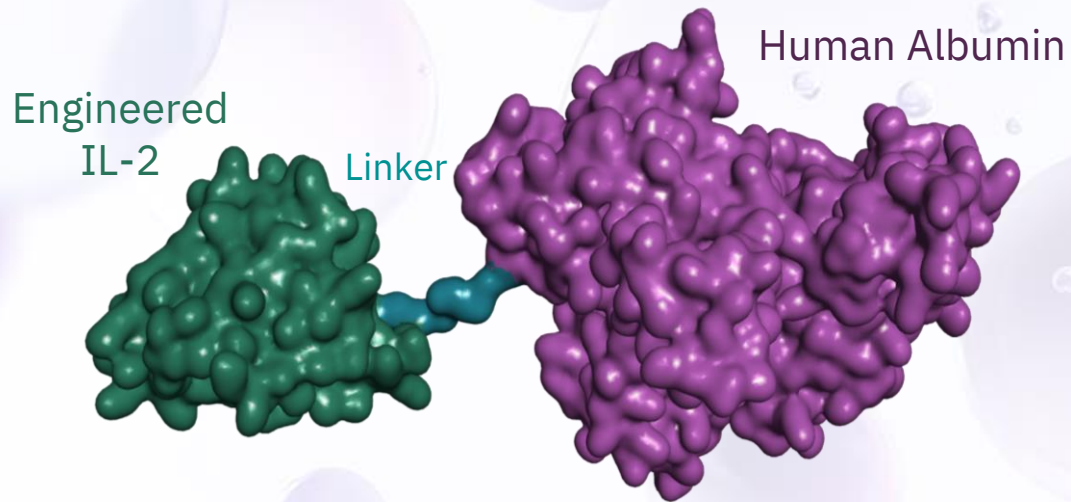
- Fusions of Superkines with antibodies, proteins or a second Superkine
- Creates differentiated MoAs

T-MASK™ Platform

- Enables drug to be administered systemically and localized without systemic immune activation
- Only becomes active within the tumor microenvironment

Balanced Pipeline of Early, Mid- & Late-Stage Assets

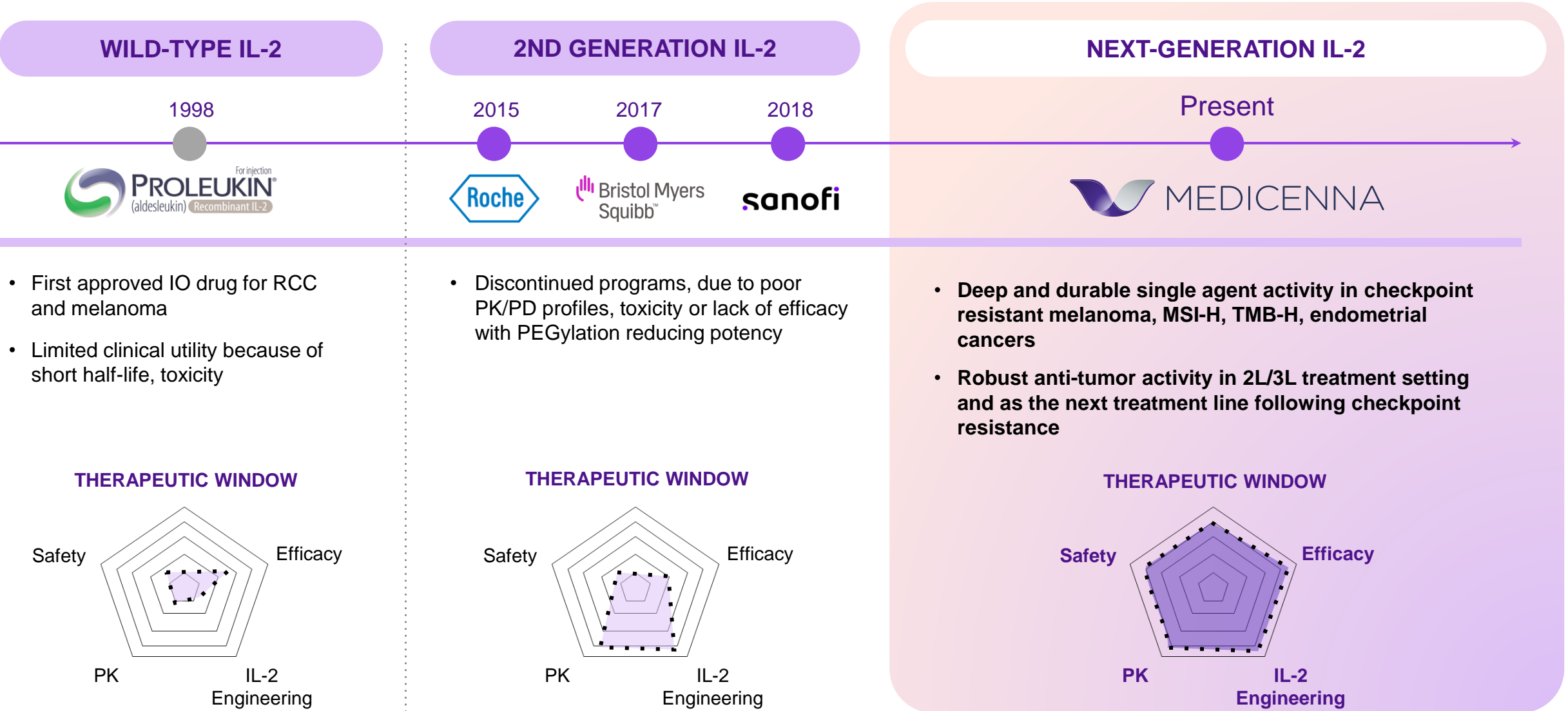
PLATFORM	CANDIDATE	INDICATION	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	STATUS	PARTNER
Superkine™ BiSKIT™	Bizaxofusp IL-4R-Toxin Fusion	Recurrent Glioblastoma					Pursuing partnership to commence Phase 3	
Superkine™	MDNA11 IL-2 Super Agonist	Various solid tumors	 			} <i>ABILITY-1 Phase 1/2 Basket Study</i>	Plan first registrational trial in 2L/3L checkpoint refractory cancers	<i>Clinical Collaborations</i>
T-MASK™ BiSKIT™	MDNA113 anti-PD-1 x IL-2 Masked Bispecific	Various solid tumors expressing IL-13Rα2					IND and commence FIH in H2 2026	
Superkine™	MDNA209 IL-2/15 Pathway Super Antagonist	Autoimmune diseases					Select lead	
Superkine™	MDNA413 IL-4/13 Pathway Super Antagonist	Inflammatory diseases					Select lead	



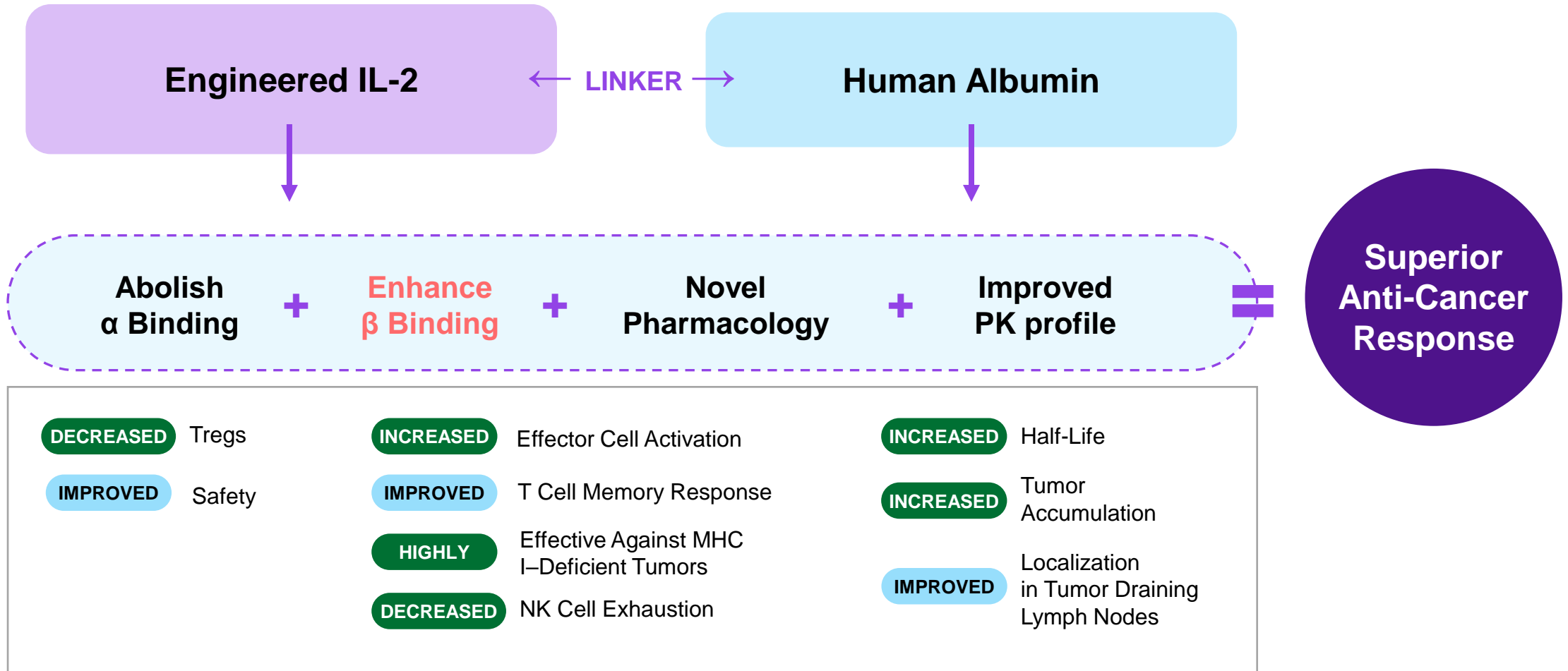
MDNA11 Overview

- A 'β-enhanced, not-α' IL-2 superagonist in clinical development for advanced solid tumors
- Clinical-Stage Therapy in Phase 1/2 with a Monotherapy Treatment Arm and a Combination Arm with KEYTRUDA® (pembrolizumab)

MDNA11 is a Differentiated Next-Gen IL-2 with Best-in-Class Potential

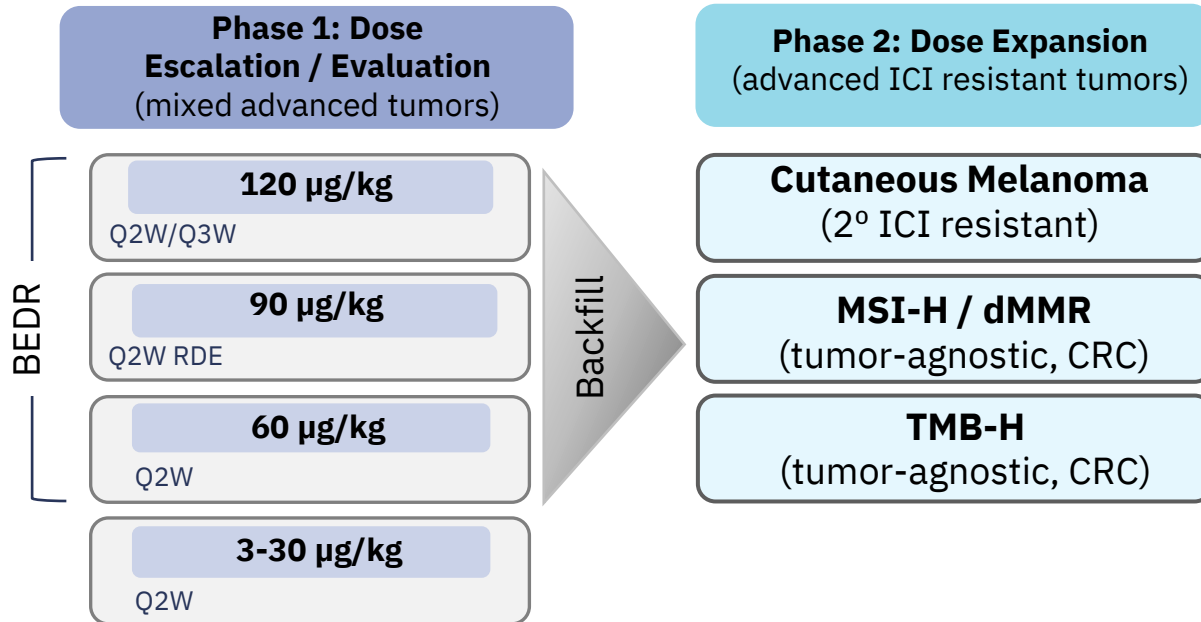


MDNA11: A Unique 'β-enhanced Not-α' IL-2 Albumin-fused Superkine

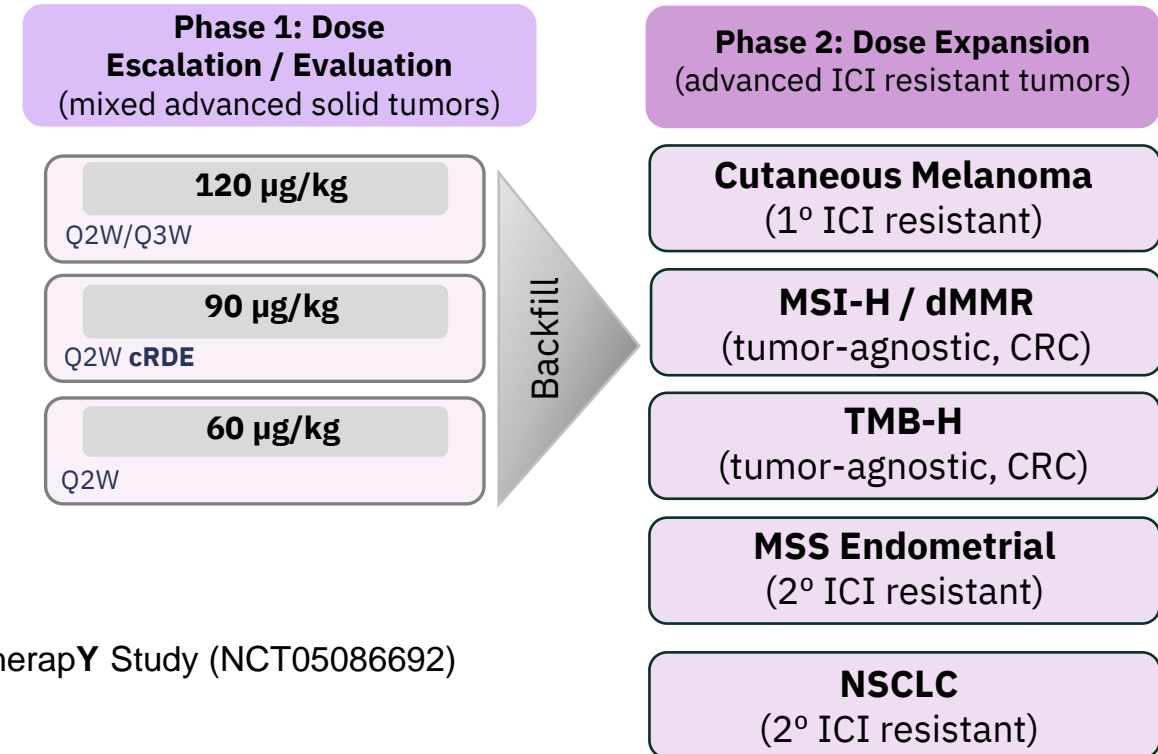


ABILITY-1: FIH Trial of MDNA11 in Patients with Advanced Solid Tumors

MDNA11 Monotherapy



MDNA11 + Pembrolizumab



ABILITY-1: A Beta-only IL-2 ImmunoTherapY Study (NCT05086692)

- MTD not established

Enrollment in expansion cohorts continues in select indications:

- Eligibility criteria requires resistance to prior ICI therapy
- Must have not had more than 2 prior Tx, 3 prior Tx allowed if last treatment was an ICI therapy

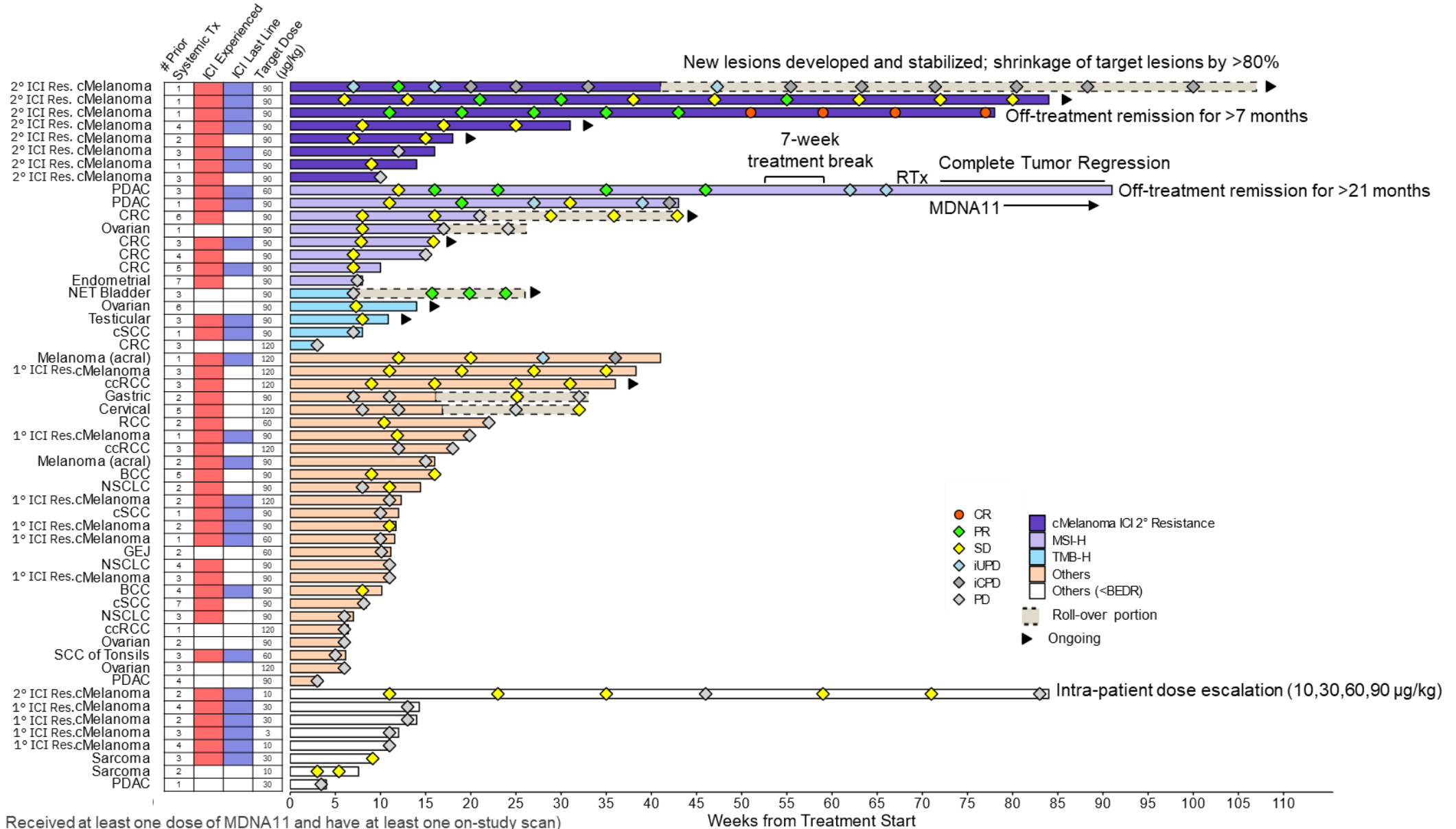
Monotherapy: Durable Disease Control Observed Across Multiple Tumor Types

cMelanoma
(ICI 2° Resistance)
ORR: 37.5%
DCR: 75%

MSI-H
ORR: 25%
DCR: 87.5%

TMB-H
DCR: 40%

Others



Data cut-off: Dec. 1, 2025

n = 55 (Efficacy evaluable: Received at least one dose of MDNA11 and have at least one on-study scan)

Weeks from Treatment Start

NET: Neuroendocrine Tumor, PDAC: Pancreatic Ductal Adenocarcinoma, CRC: Colorectal Cancer, RCC: Renal Cell Carcinoma, cSCC: Cutaneous Squamous Cell Carcinoma, BCC: Basal Cell Carcinoma, GEJ: Gastroesophageal

MDNA11+ Pembrolizumab: Demonstrates Durable and Deepening Responses

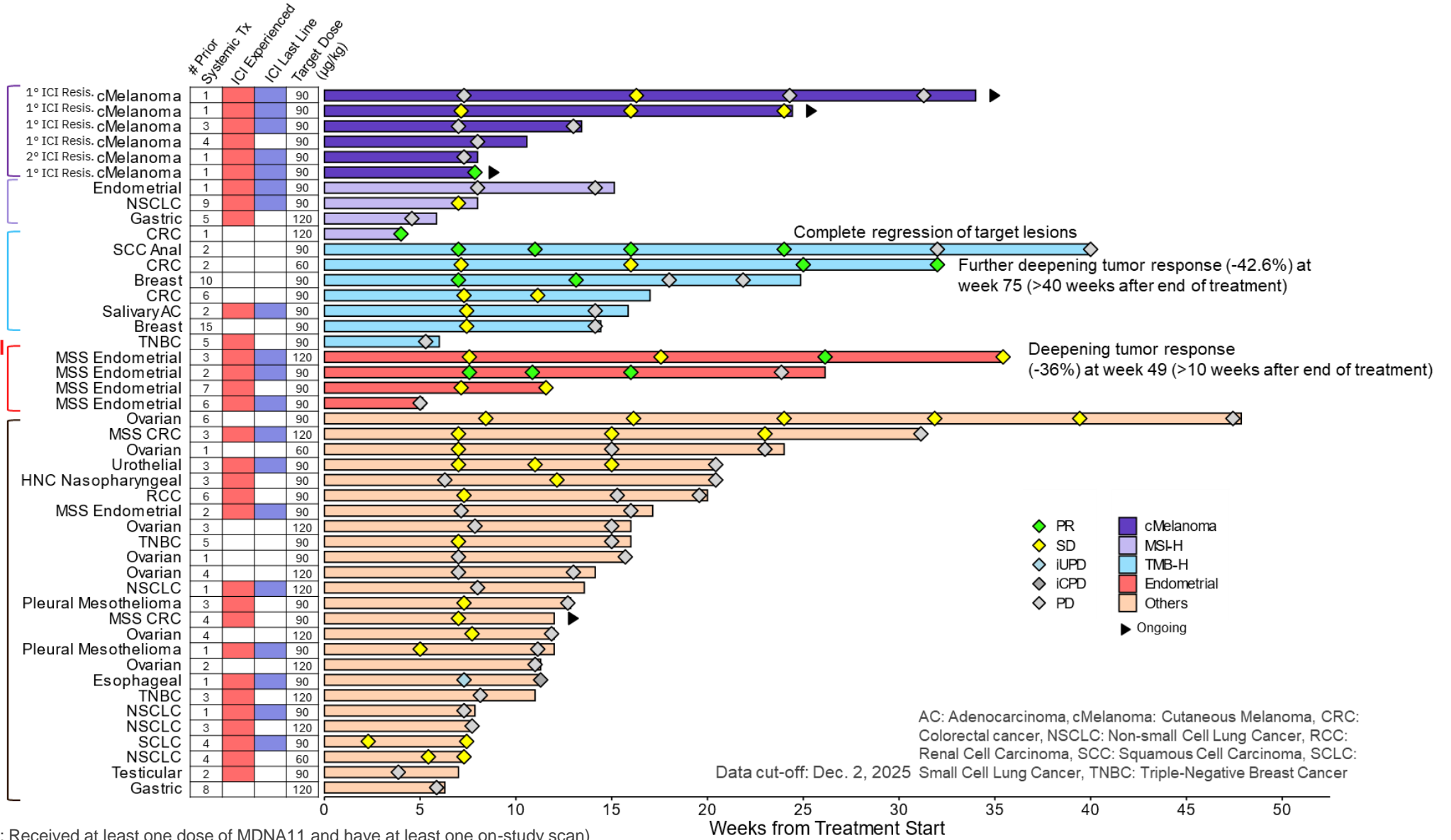
cMelanoma
ORR: 16.7%
DCR: 50%

MSI-H
ORR: 25%
DCR: 50%

TMB-H
ORR: 42.8%
DCR: 85.7%

MSS Endometrial (ICI 2° Resistance)
ORR: 50%
DCR: 75%

Others

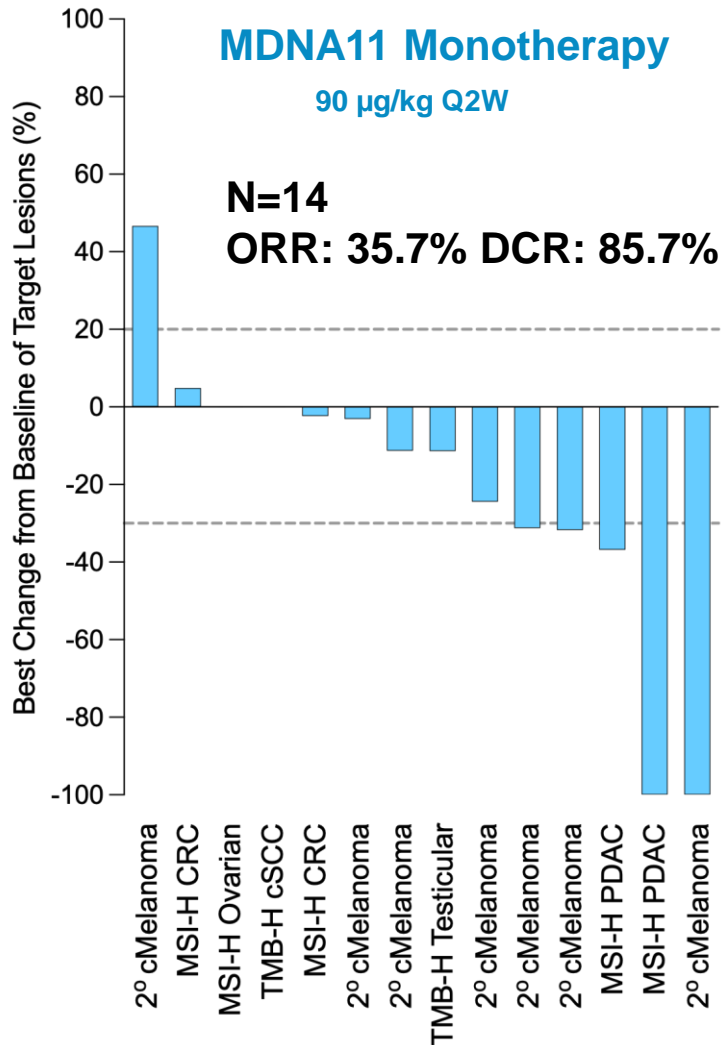


n = 46 (Efficacy evaluable: Received at least one dose of MDNA11 and have at least one on-study scan)

Weeks from Treatment Start

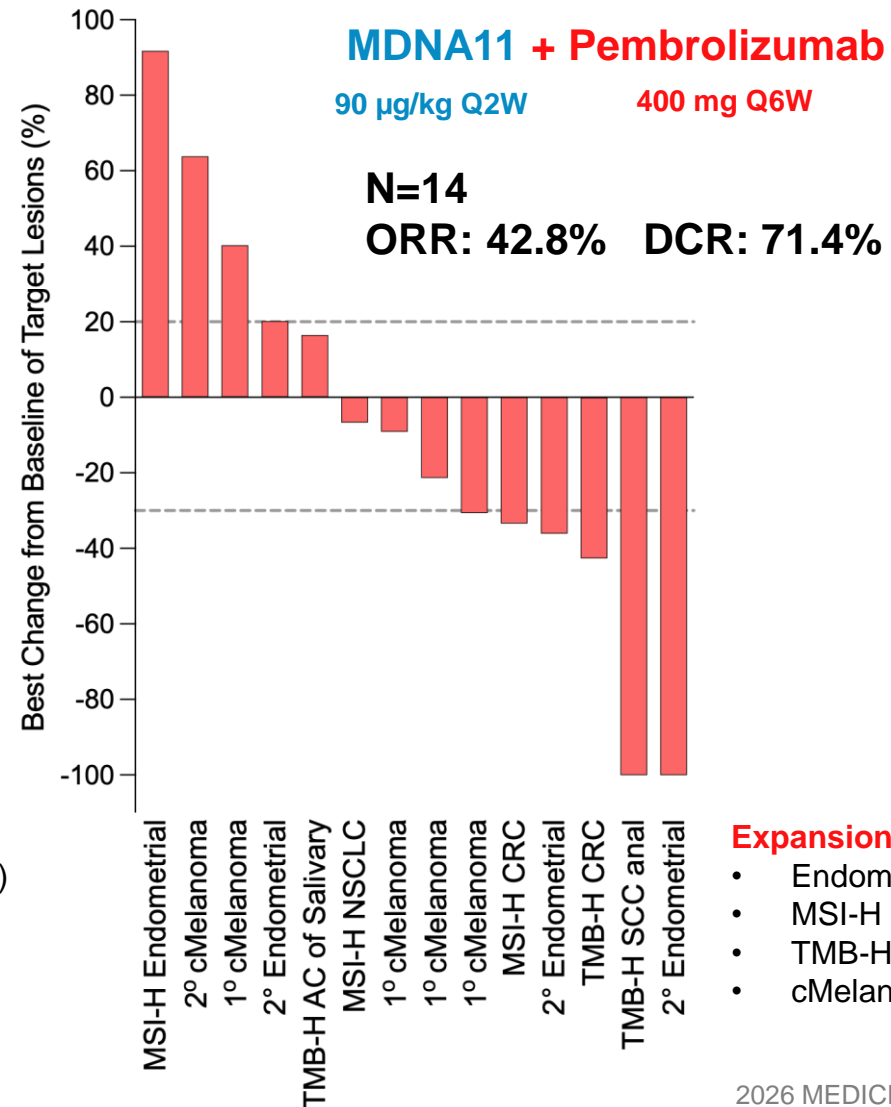
Compelling Anti-Tumor Activity in Earlier Line Therapy Settings

Dose Expansion Cohorts: Last Line ICI OR 1-2 Prior Systemic Treatments



Expansion Cohorts:

- cMelanoma (2° ICI resistance)
- MSI-H
- TMB-H



Expansion Cohorts:

- Endometrial (2° resistance)
- MSI-H
- TMB-H
- cMelanoma

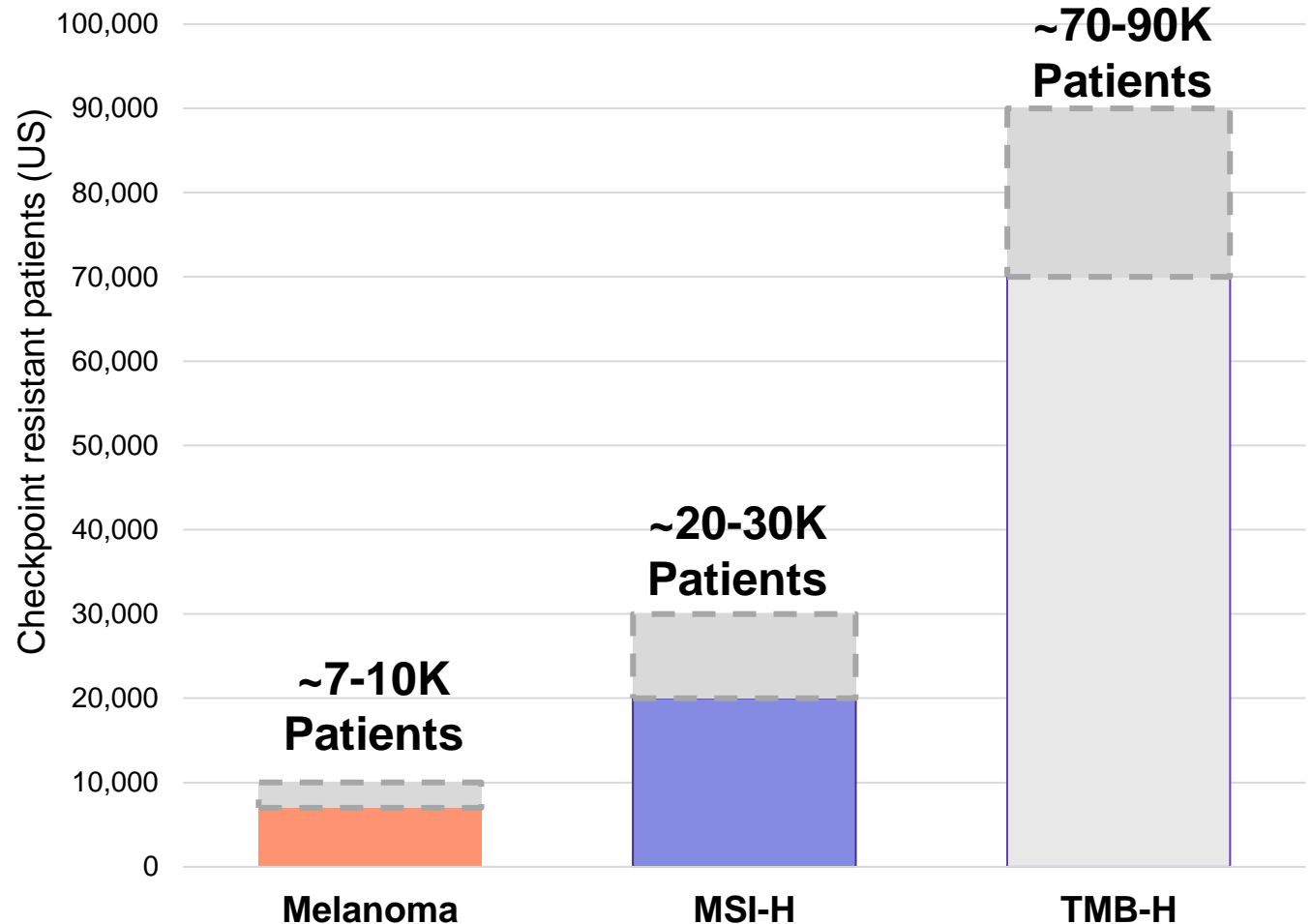
Addressable Markets in Checkpoint-resistant MSI-H, TMB-H and Melanoma Cancers

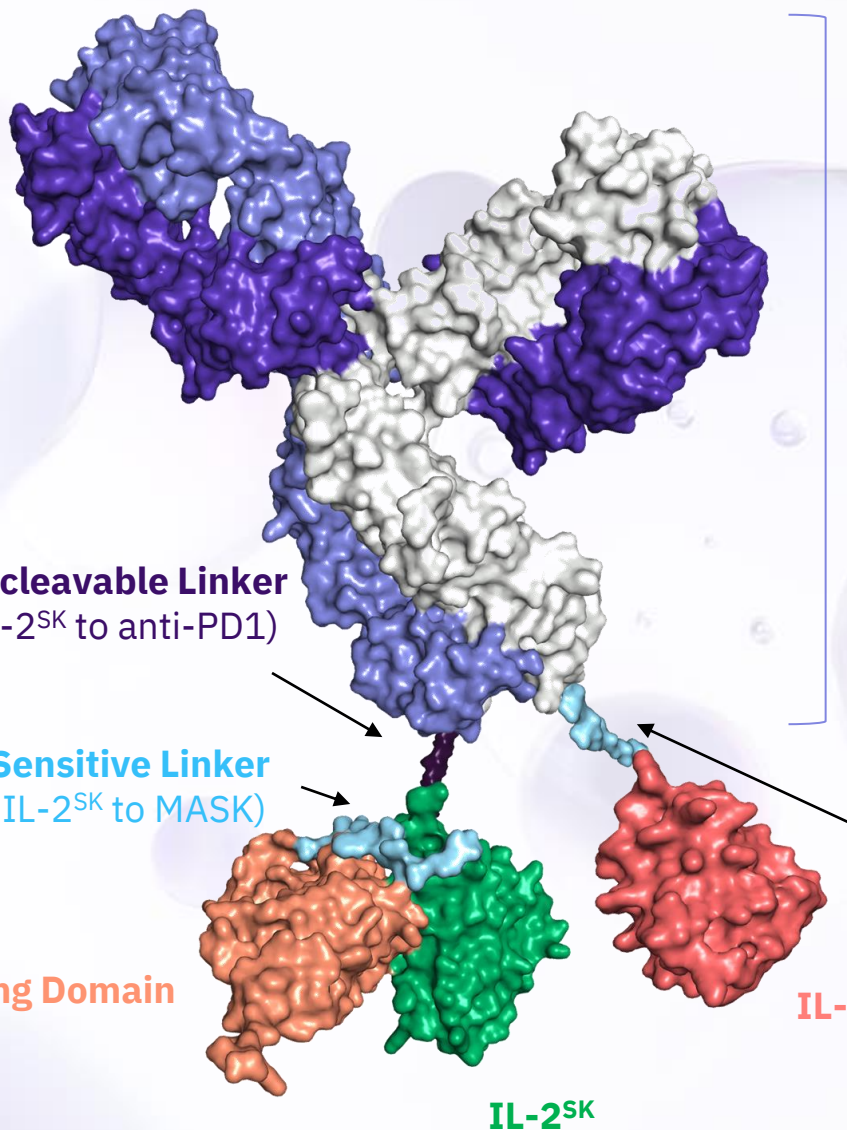
Future MDNA11 Development Potential

MDNA11 has the potential to expand into additional tumor types where PD-(L)1 is approved

Additional tumor types with US revenue > \$30B (in 2024)

Estimates for Annual Checkpoint Resistant Advanced Cancers in the US





Anti-PD1

MDNA113

- Lead Pre-clinical Program
- Differentiated PD-1 x IL-2 Bi-functional Molecule
- First-in-Class Potential with Novel IL-13R α 2 Targeted and Conditionally Activated Bifunctional Approach

Non-cleavable Linker
(connects IL-2^{SK} to anti-PD1)

Protease Sensitive Linker
(connects IL-2^{SK} to MASK)

Protease Sensitive Linker
(connects IL-13^{SK} to anti-PD1)

IL-2 Masking Domain

IL-13R α 2 Targeting Domain

IL-2^{SK}

Anti-PD-1 Bispecifics Have Emerged to Compete with PD-(L)1 Therapies



Ivonescimab



LM-299



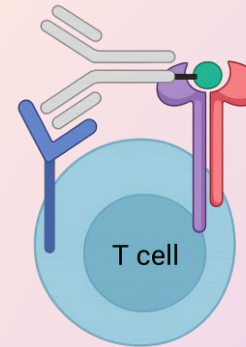
BNT327



SSGJ-707

Next I/O Wave

Anti-PD-1 x IL-2 programs are a next-generation opportunity enabled by cis-binding synergies



PD-1 x IL-2 *cis*-binding



MDNA113



TAK-928

REGENERON

REGN10597

BiSKIT™: MDNA113 is a Tumor Targeting & Conditionally Activated Anti-PD1-IL2^{SK}

cis-Binding Synergies:

- Anti-PD-1 + IL-2 = durable immune invigoration on same T cells within TME

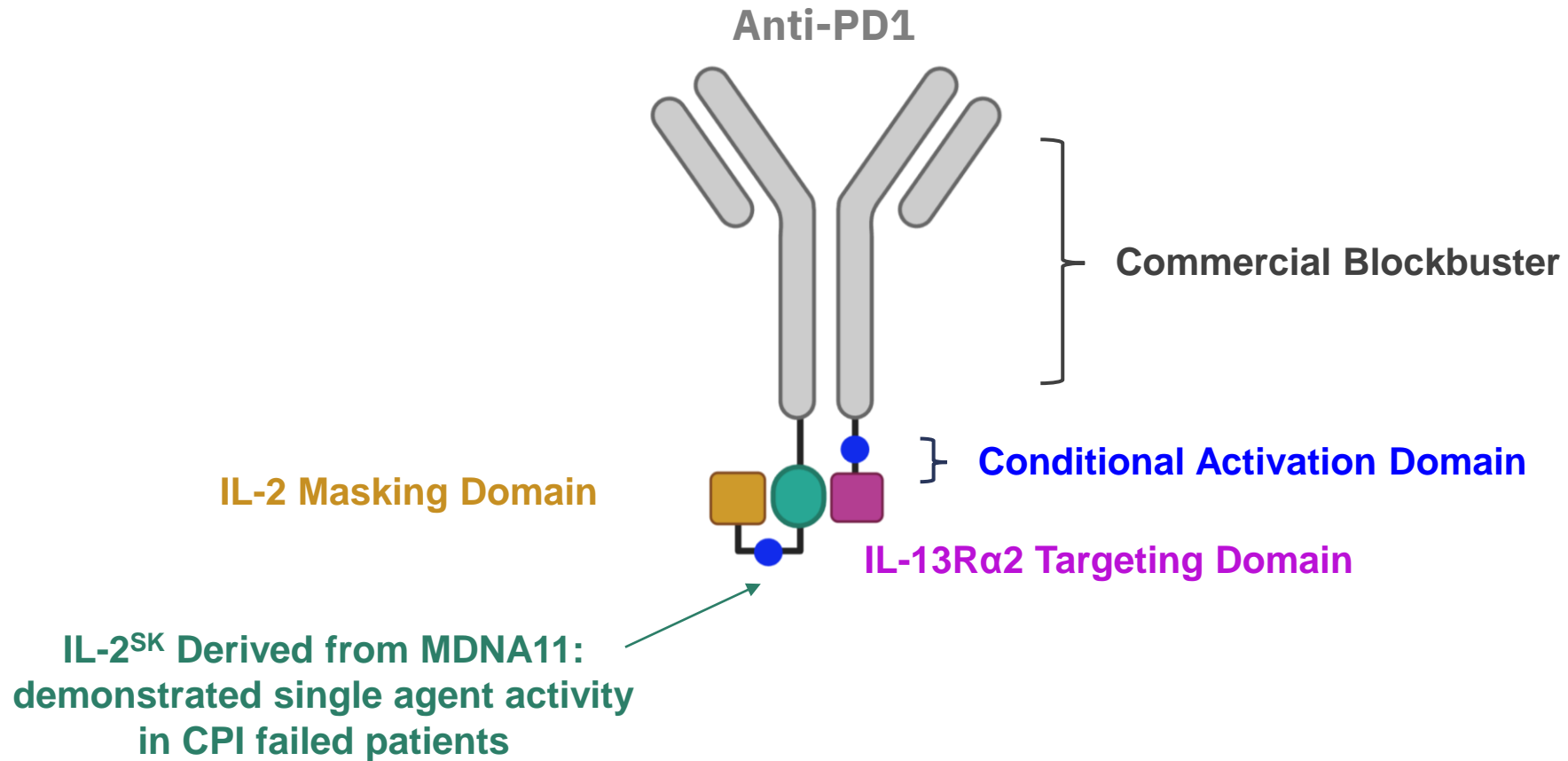
Masking:

- Enables high dosing of the anti-PD-1:IL-2 bifunctional fusion protein
- Complete saturation of PD-1 & conditional activation of high dose IL-2 in TME
- Competing programs require attenuated IL-2 binding affinity and are capped on dosage (e.g. IBI363 at 1 mg/kg Q3W) thereby limiting PD-1 saturation and leading to suboptimal IL-2 activity within TME

Targeting and Anchoring:

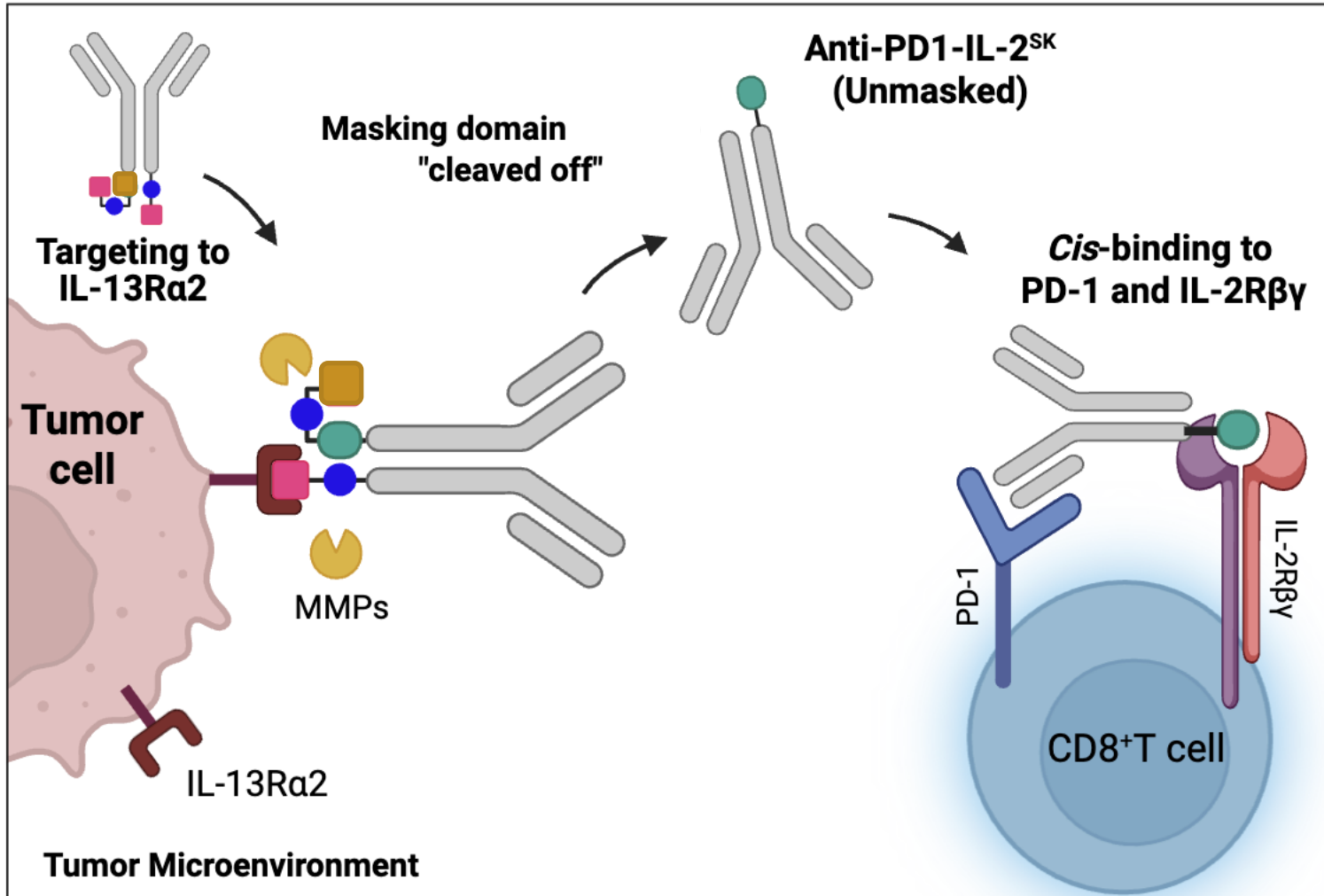
- Masking approaches have been criticized for their ability to localize the drug to the TME long-enough so that the drug can be sufficiently cleaved by MMPs
 - MDNA113 overcomes this by targeting and anchoring to tumors expressing IL-13R α 2
 - IL-13R α 2 is highly expressed in solid tumors and is associated with poor prognosis

BiSKIT™: MDNA113 is a Tumor Targeting & Conditionally Activated Anti-PD1-IL2^{SK}



Broad patent coverage around IL-2, PD-1 x IL-2 fusion, IL-13R α 2 anchoring & masking approach

Mechanism: MDNA113 is Anchored to IL-13R α 2 and is then Activated in the TME via MMP Cleavage



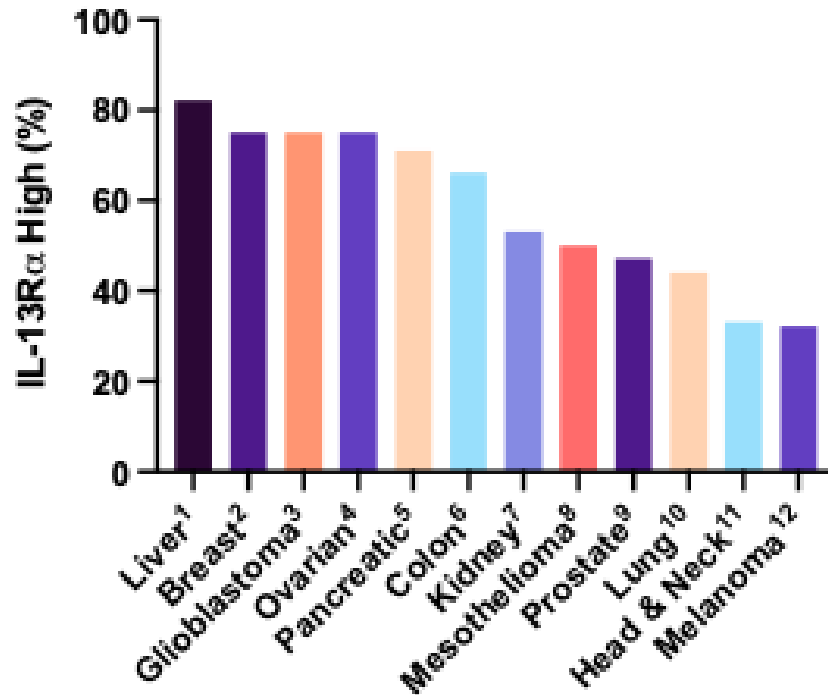
Unleashes immune effector activity within the TME

- *Cis*-binding to IL-2R and PD-1 on CD8⁺ T cells
- Maximizes synergy between immune cell activation (by IL-2^{SK}) and immune checkpoint blockade (by anti-PD1)

IL-13R α 2 is Expressed in Many Tumors Affecting 2M+ Patients Annually

Blockbuster potential: High IL-13R α 2 expression is associated with poor clinical outcomes, making it an ideal TAA target

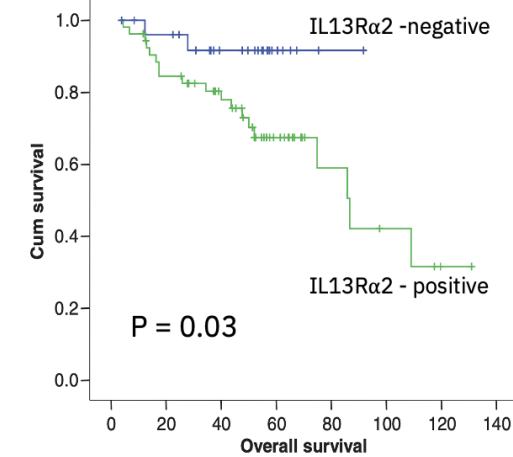
High IL-13R α 2 Expression Rates Across Cancers



1. Hou et al., J Cancer Res & Clinical oncol (2009); 2. Papageorgis et al., Br Cancer Res (2015); 3. Joshi et al., Cancer Res (2000); 4. Kioi et al., Cancer (2006); 5. Shimamura et al., Clin Cancer Res (2010); 6. Barderas et al., Cancer Res (2012); 7. Kang et al., J Per Med (2021); 8. Oncomine Cancer MicroArray (OMCA Database); 9. Nagai et al., Cancer Repts (2023); 10. Xiw et al., Oncotarget (2015); 11. Kawakami et al., Clin Cancer Res (2003); 12. Beardi et al., Clin Cancer Res (2013)

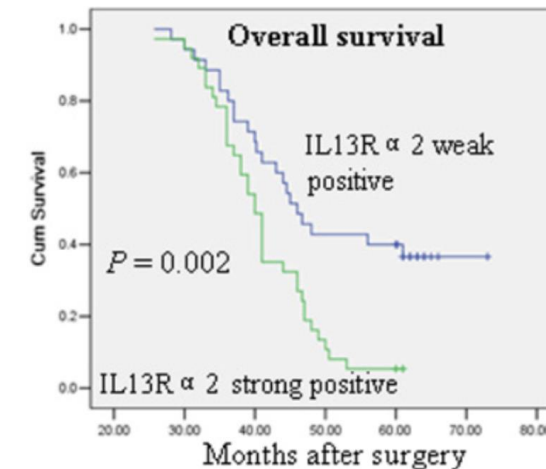
COLON CANCER

Barderas et al.,
Cancer Res, 2012



LUNG CANCER

Xie et. al.
Oncotarget, 2015



Potential Benefits of MDNA113 vs Competing Programs



PD-1/IL-2^α-bias

- Early signs of efficacy in CPI-naïve patients
- Advancing into Phase 2 and Phase 3 Registrational Trials
- **Grade 5 events consistent with IL-2R^α binding and native IL-2**
- **Due to toxicity, TAK-928 is capped on its dosage**



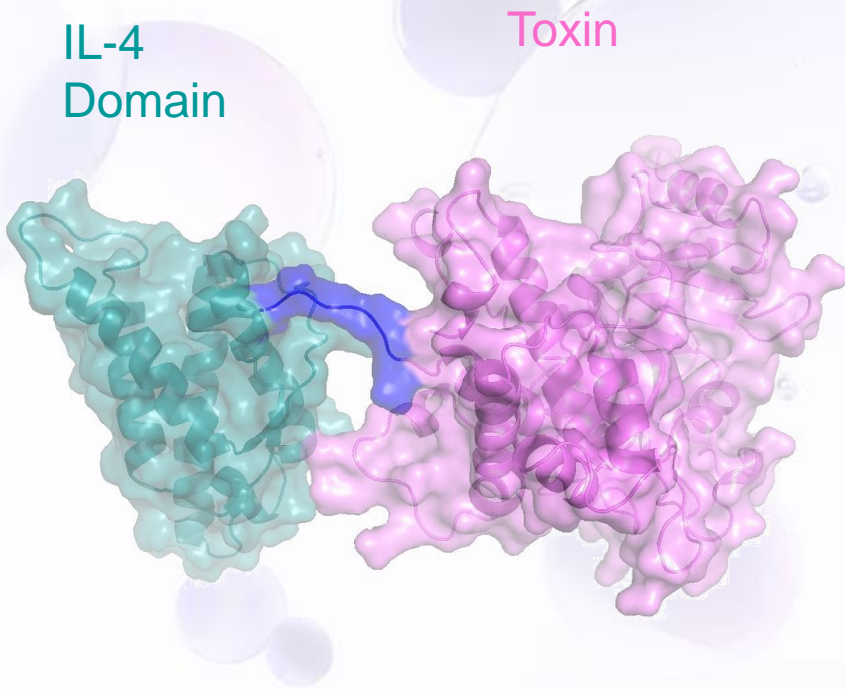
PD-1/IL-2^{non-α, β} enhanced

- IL-13R^{α2} tumor-anchoring
- Activation of drug at tumor site
- Designed to be safer via with conditional activation (i.e. not capped on dosage)
- Targets cold tumors
- **IL-2 component alone of MDNA113 has similar efficacy to TAK-928 in cutaneous melanoma (~30% ORR)**

MDNA113 Designed With Unique IO Profile to Optimize Therapeutic Index

Differentiation of MDNA113 to other Bifunctional Anti-PD1-IL-2 Clinical Candidates

KEY FEATURES	Medicenna MDNA113	Other IL2/anti-PD1 candidates
β -enhanced and not- α IL-2 ^{SK} (clinically validated)	✓	✗
Tumor Specific Targeting (IL-13R α 2)	✓	✗
PD-1/PD-L1 Blockade (clinically validated vs. novel)	✓	✓✗
Cis-binding (IL-2R/PD-1) (Synergistic engagement potentiates immune activation)	✓	✓✗
IL-2 ^{SK} attenuated in periphery	✓	✓✗
IL-2 ^{SK} activated in TME	✓	✓✗



Bizaxofusp (MDNA55) for Recurrent GBM

- A Phase 3-Ready Asset with
 - Orphan Drug Designation (FDA and EMA)
 - Fast Track Status (FDA)
 - FDA-Endorsed Pivotal Phase 3 Trial Design
- Pursuing a Development and Commercial Partnership

Treatment Paradigm for GBM has NOT Changed in Decades & GBM is Uniformly Fatal

Patient Journey

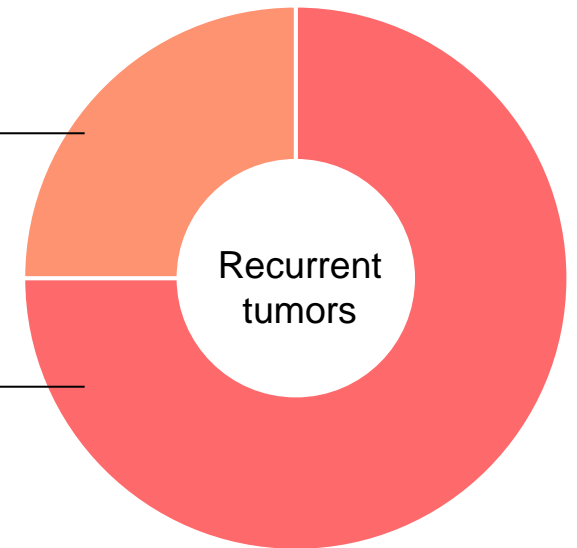


100%
of patients
RELAPSE

- 1 GBM is uniformly fatal
- 2 Recurrent tumors are less accessible surgically
- 3 No defined rGBM standard of care
- 4 Median overall survival (mOS) with approved therapies** is 6-9 months
- 5 2-year survival for rGBM is 5-10%

25%
OPERABLE
rGBM

75%
INOPERABLE
rGBM

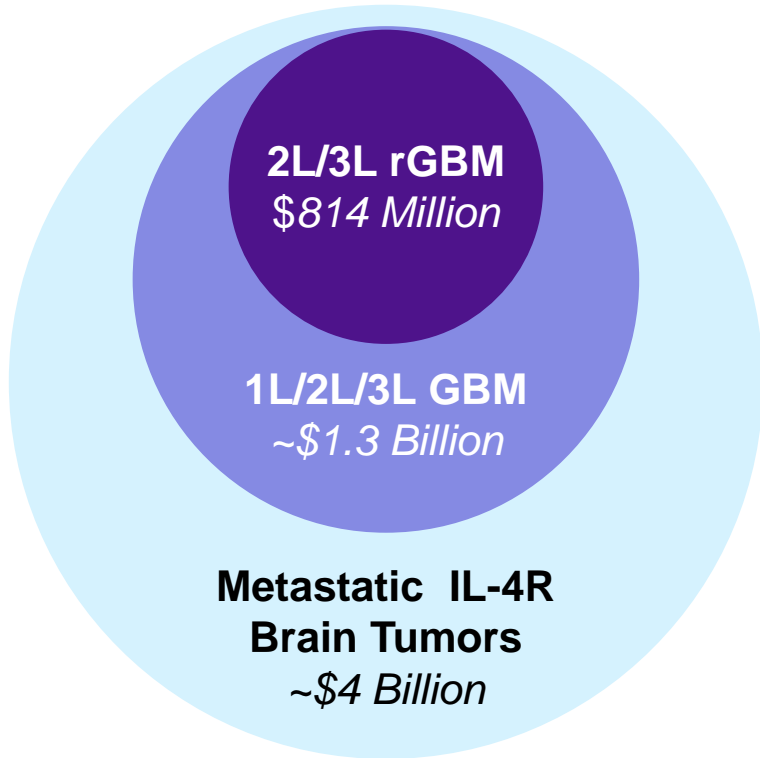


* Expression of the DNA repair protein O6-methylguanine-DNA methyltransferase (MGMT) is responsible for resistance to Temodar







** Avastin, Lomustine, Gliadel, Optune, Temodar, Radiotherapy

Bizaxofusp has \$1.3B Sales Potential if Approved for GBM, up to \$4B if Approved in other Brain Cancers

Projected Peak Sales⁽¹⁾



	2L/3L rGBM	Non-resectable GBM	Metastatic IL-4R Brain Tumors <i>Renal Breast Colon Leptomeningeal</i>
Total market (patients)	~19,000 annually (US/EU)	~22,000 annually (US/EU)	~76,000 annually (US/EU)

IL4R Overexpressing Metastatic Brain Tumors	 Renal Cancer ~6,000	 Breast Cancer ~47,000	 Colon Cancer ~23,000
Additional IL4R Positive Cancers	 60% Ovarian ~21,500	 73% Bladder ~85,000	 96% Mesothelioma ~3,000

Bizaxofusp: A Molecular Trojan Horse

A first-in-class phase 3-ready IL-4 superkine for recurrent GBM

Approach By-Passes BBB

Intra-tumoral administration **avoids systemic toxicity** and achieves tumor control

Highly Selective for IL-4R

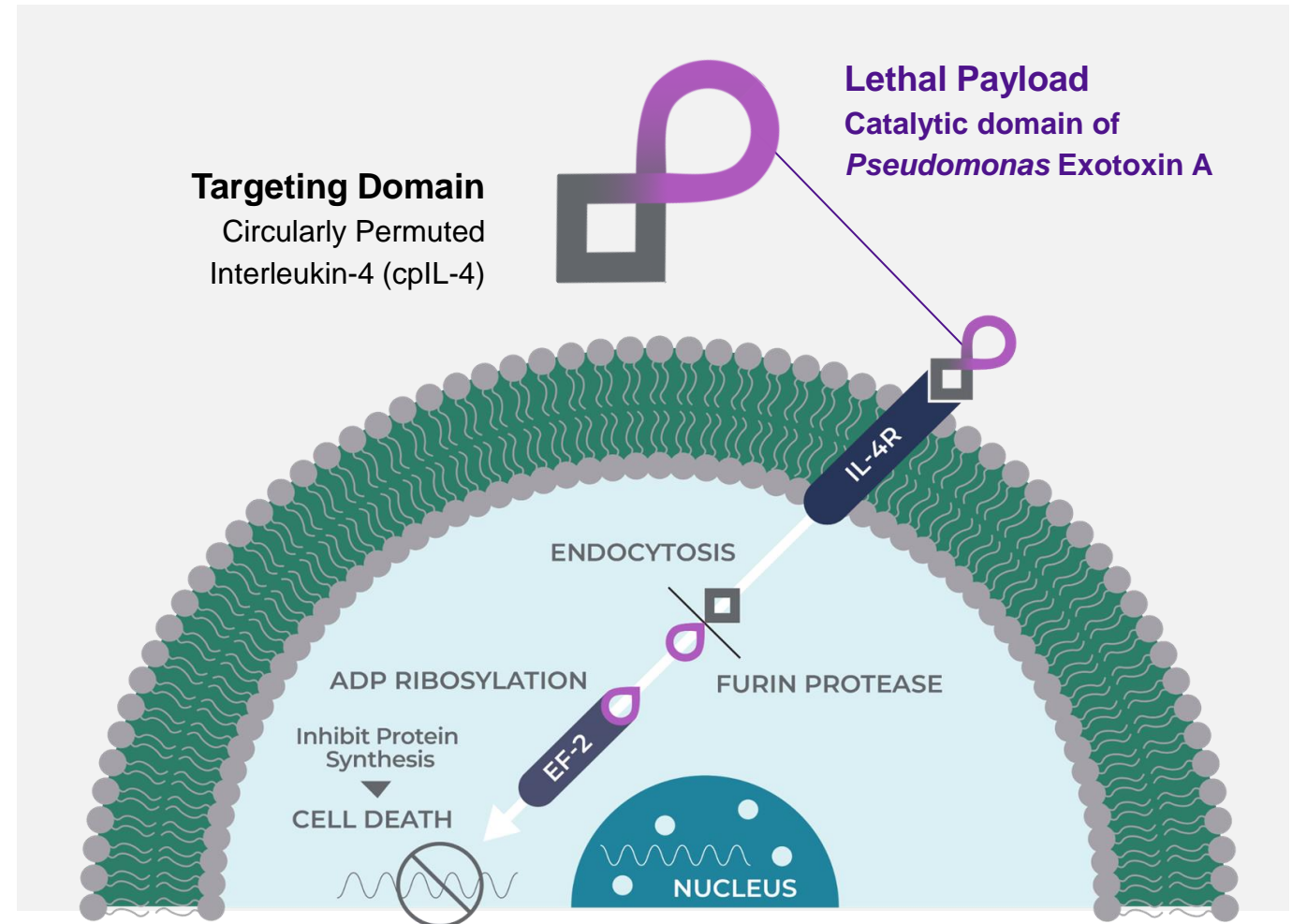
Receptor is expressed in brain tumors and immunosuppressive, non-malignant TME, **but not in healthy brain cells**

Disrupts the TME

Eliminates IL-4R positive MDSCs in to remove their immunosuppressive effect and restore the function of T cells.

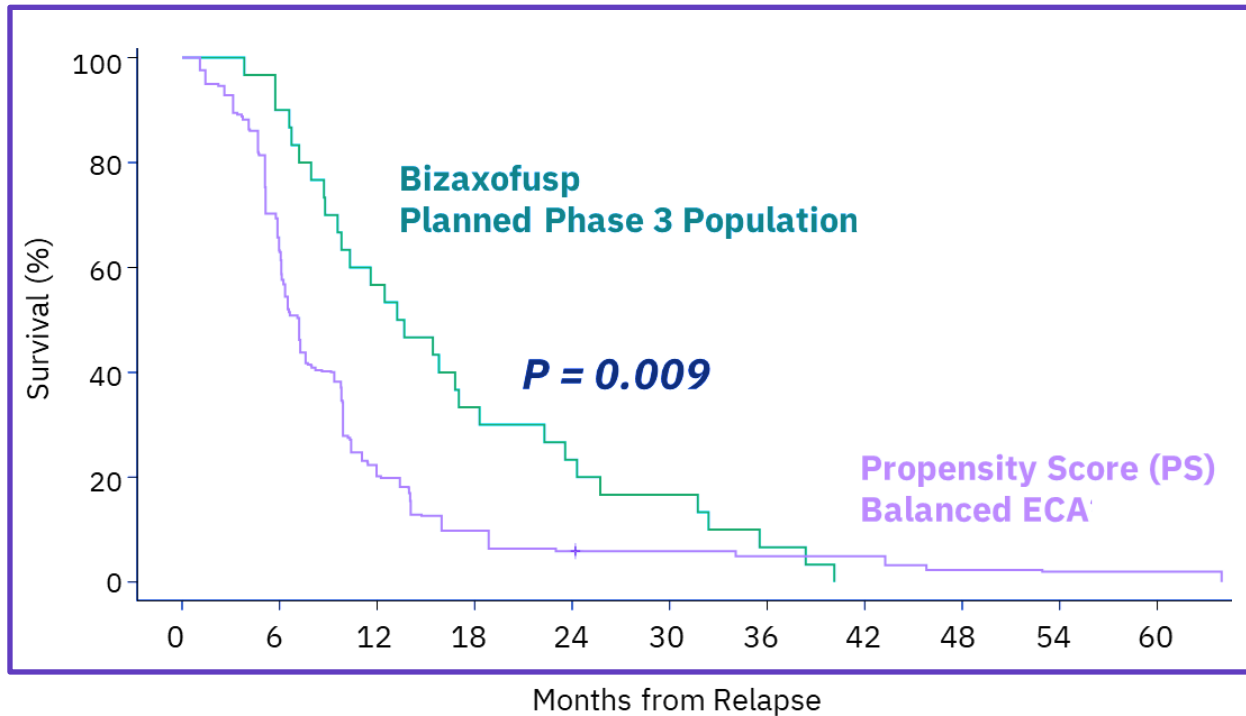
Sustained anti-tumor immunity

Immunogenic cell death triggers primes long-term anti-tumor immunity



Single Treatment Doubled Median Overall Survival (OS)

OS increased by 180% at 12 months and 290% at 24 months when compared to ECA



	PS Balanced ECA (N = 29.5)	Bizaxofusp (N = 30)
OS-12	20.2%	56.7%
OS-18	9.8%	33.3%
OS-24	5.9%	23.3%
OS-30	5.9%	16.7%
mOS (months)	7.2	13.5
p-value*	0.009	
HR* (95 % CI)	0.536 (0.344, 0.834)	

*Log-rank test

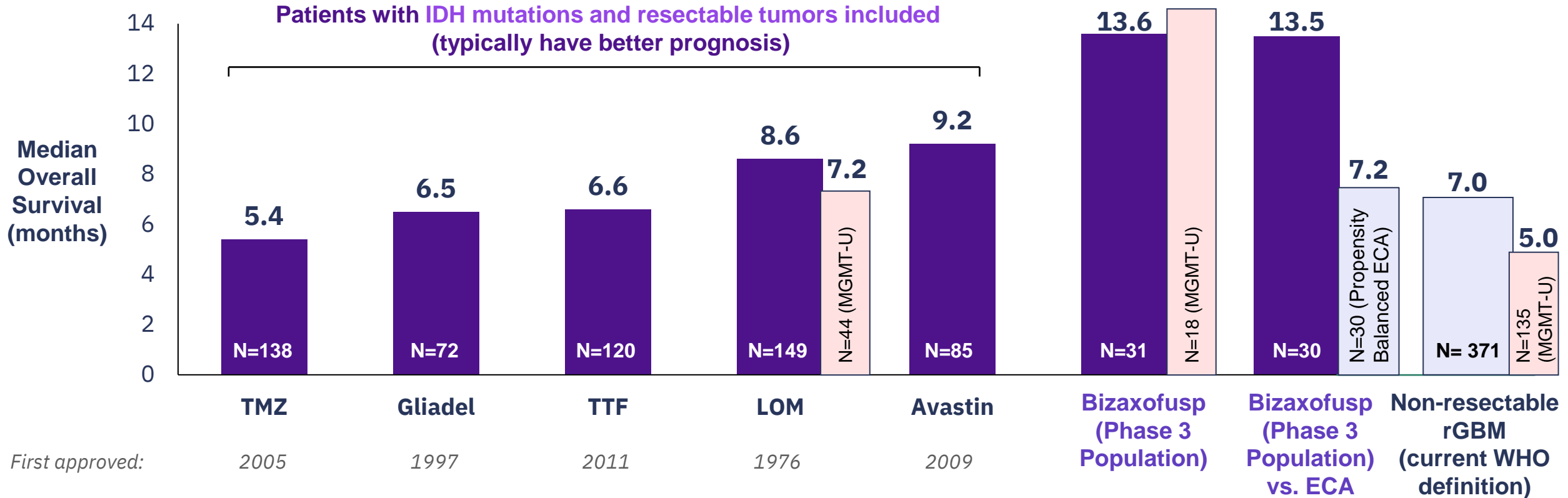
Patients enrolled in the external control arm (ECA) met same eligibility criteria as Phase 2b and were then matched using propensity score balancing

Bizaxofusp Demonstrates Improved Survival Compared to Approved Therapies in rGBM

“MGMT status is a real limitation for patients using temodar, but it is still used as first- and second-line treatment. Bizaxofusp gives another option for unmethylated patients.”

– US Neurosurgeon

Based on current WHO GBM definition (non-resectable rGBM IDH wild-type only)



2023, Neuro-Oncology, 25 (9)

A New Hope for the Deadliest Brain Cancer

**Strong
Clinical
Validation**

13.5

Months median OS vs 7.2 months in a propensity matched arm

~100%

Improvement in Median Survival compared to Standard of Care

Market

19,000

Number of Patients Annually Diagnosed with rGBM in US and EU4+UK

250,000

Global Annual Incidence of Primary and Metastatic Brain Cancers

Beyond rGBM

20

Number of Cancers Known to Over-Express the IL-4R

1 Million

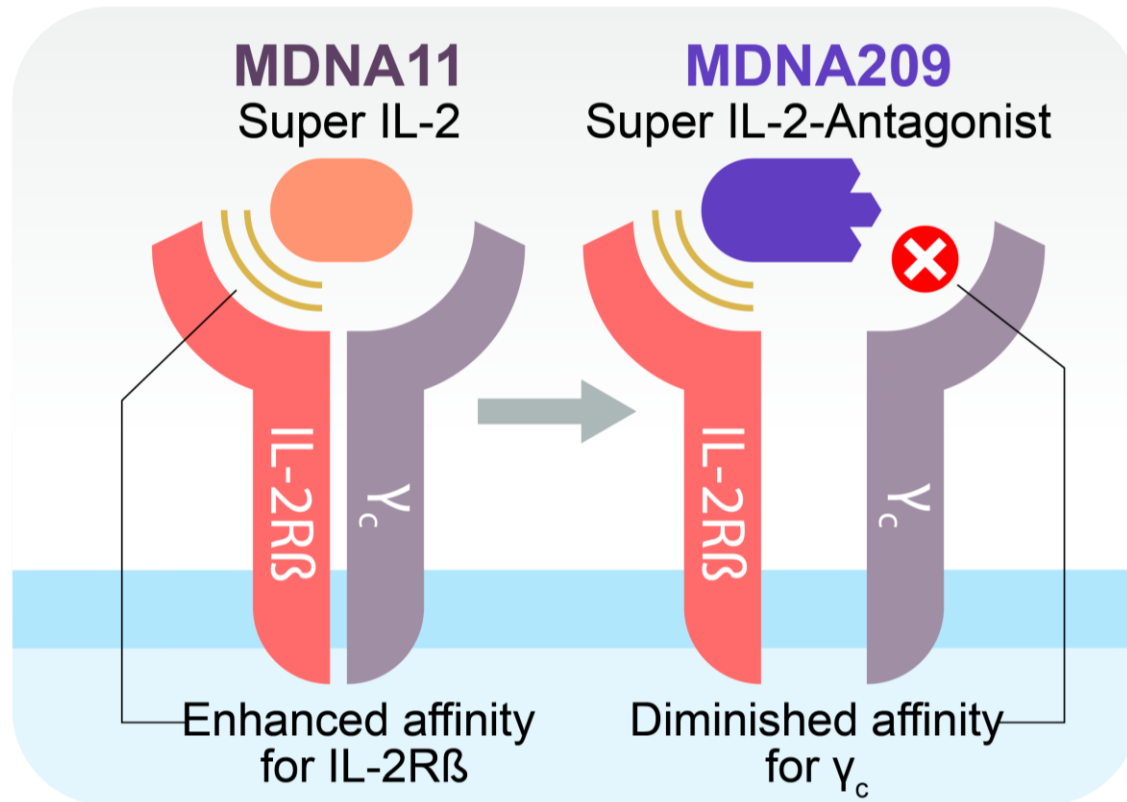
Global Annual Incidence of IL-4R Positive Cancers

Pre-Clinical Programs

- Autoimmune: MDNA209
- Inflammatory: MDNA413

MDNA209: A Potent IL-2/IL-15 Pathway Antagonist

A novel mechanism for treating autoimmune diseases



Directed Evolution Introduced Targeted Mutations & Transformed IL-2 into a High-Affinity IL-2/IL-15 Receptor Antagonist

- Mutations ablate γ_c -binding
- Dominant negative inhibition of effector CD4, CD8 T and NK cells

Immunology & Inflammatory Disease Opportunities

- Graft vs. host disease (GvHD)
- Systemic lupus erythematosus (SLE)
- Rheumatoid arthritis (RA)
- Type 1 diabetes (T1D)
- Multiple sclerosis (MS)
- Behçet's disease
- HTLV-1 associated myelopathy (HAM)
- Celiac disease
- Atopic dermatitis
- Alopecia areata
- Vitiligo

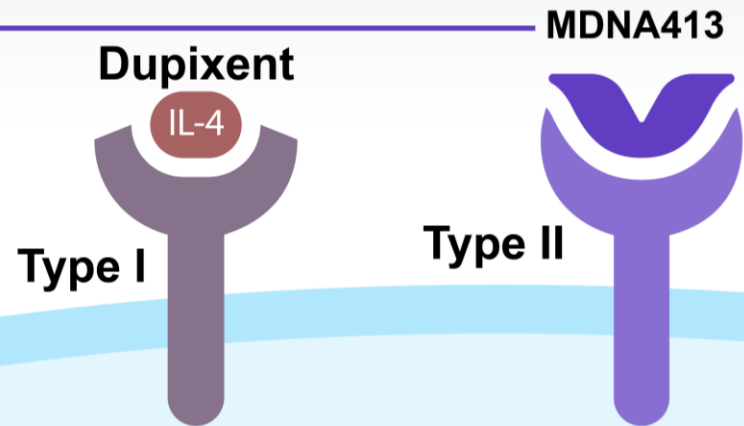
MDNA413: A Highly Selective IL-4/IL-13 Pathway Super-Antagonist

Potential for topical or aerosolized administration for chronic inflammatory diseases

MDNA413

Type II IL-4R Antagonist

- High affinity inhibitor of IL-13R α 1
- Preserves endogenous type I IL-4R signaling
- Potential to synergize with anti-IL-4R α inhibitors
- Fc added to extend half-life



\$11.4B
2023 Revenue

DUPIXENT[®]
REGENERON
sanofi

Cancer

- Skewing towards M2a TAMs
- Promotion of MDSCs
- Pro-tumor TME
- Promotes tumor growth and metastasis

Th2-Mediated Diseases

- Activation of myeloid cells and non-hematopoietic cells (i.e. nerve fibers)
- Promotes pathogenesis of airway inflammation, AD, EoE, itch and other allergic indications

Financials & Catalysts

Stock and Financial Information

Balance sheet provides cash runway through mid calendar 2026

Capitalization Summary

Headquarters	Toronto, CA
Market Capitalization	\$75M CAD ³
Cash	\$10.6M CAD ^{1,2}
Debt	\$0
Basic SO	~83 Million ^{1,2}
Fully Diluted SO	~106 Million ^{1,2}
Insider Ownership	~22% ^{1,2}

¹ As of 12/31/2025 – See Company's Q3 F2026 Financial Results and MD&A

² Includes \$20M private placement by RA Capital, which includes ~5M common shares and ~5M pre-funded warrants

³ As of market close February 2nd, 2026

ANALYST COVERAGE

Bloom Burton & Co.

David Martin PhD, MBA

Lucid Capital

Dev Prasad PhD, MBA

Jones Research

Catherine Novack MS

H. C. Wainwright & Co

Swayampakula
Ramakanth PhD, MBA

Research Capital

Andre Uddin PhD

Anticipated Milestones & Events

Timeline

H1 2026

H2 2026

Program Milestones

MDNA11:

- Enrollment in 2L/3L Tx setting and immediately following ICI resistance in the following tumor types: melanoma, MSI-H, TMB-H, MSS endometrial cancer (combo only), NSCLC (combo only)
- Neoadjuvant melanoma trial initiation

MDNA113:

- Non-human primate safety/PK/PD results

MDNA11:

- PoC data post 2L/3L therapy
- End of P1 meeting with FDA
- Plan P2 registration study with FDA
- Neoadjuvant melanoma Ph1b data

MDNA113:

- IND submission for FIH trial initiation

Bizaxofusp:

- Partner and initiate phase 3 trial

Recent and Upcoming Events

February 17-19

March 22-24

April 17-22

Apr 21-22

May 29-Jun 2





TSX: MDNA OTCQX: MDNAF

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