



Extending the Boundaries of Targeted Cancer Therapies

Patrick Amstutz, CEO

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Nasdaq, SIX Swiss Exchange: MOLN

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Molecular Partners' audited consolidated financial statements at and for the year ended December 31, 2025 are not yet available. As a result, the financial information described in this presentation is preliminary and unaudited, represents management's estimate as of the date hereof and is subject to completion of the Company's financial closing procedures for the fourth quarter and fiscal year ended December 31, 2025. This preliminary financial information may materially differ from the actual results that will be reflected in the Company's audited consolidated financial statements when such financial statements are completed and publicly disclosed. The Company's independent registered public accounting firm has not conducted an audit or review of, and does not express an opinion or any other form of assurance with respect to, the Company's preliminary results.

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Extending the Boundaries of Targeted Cancer Therapies

DARPin

Designed Ankyrin
Repeat Protein



Our Company

- Clinical-stage biotech company, founded 2004
- Operations & listing in Switzerland (SIX, 2014) and US (Nasdaq, 2021)
- Financed (USD ~116 M / CHF ~93 M*) to capture upcoming value inflection points

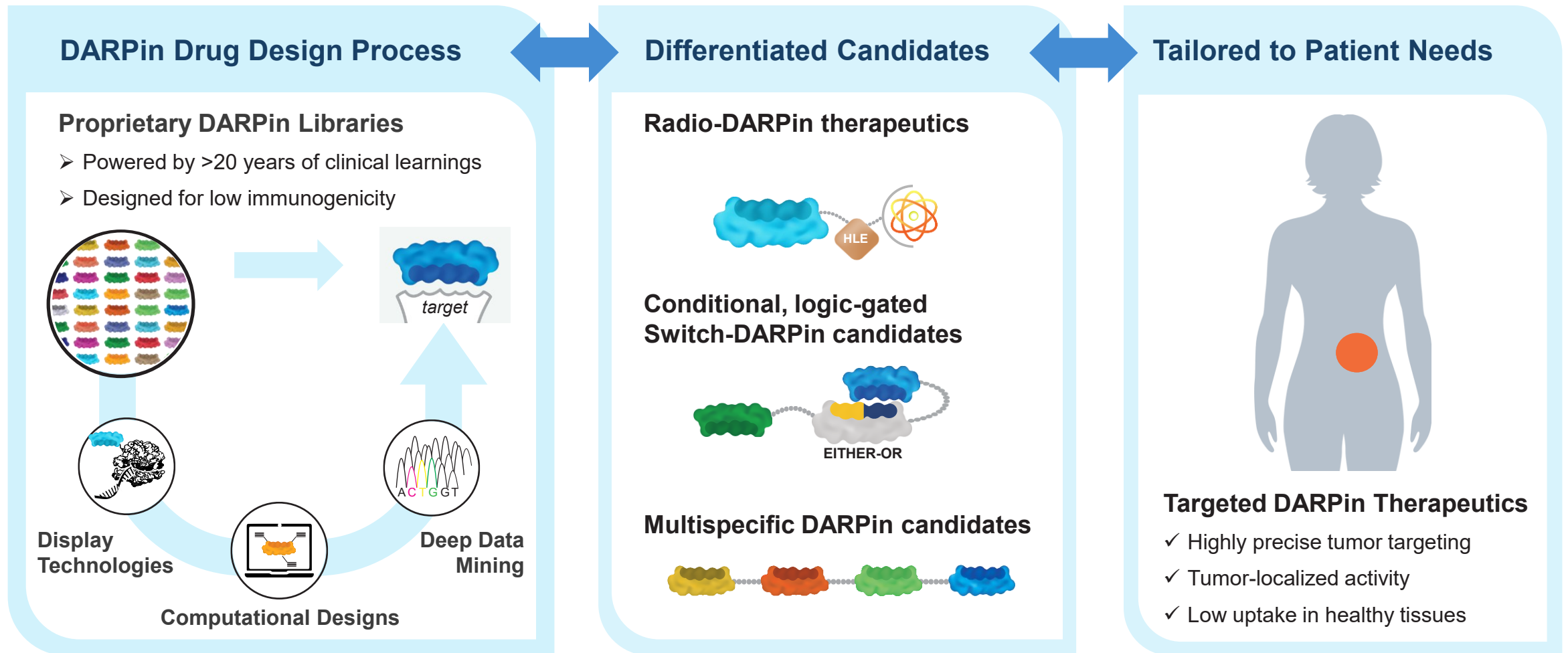
Our Capabilities

- **DARPin therapeutics**: new class of drugs, clinically-validated, proprietary platforms
- Strong team to execute up to clinical POC
- Global partnerships to access technology & capabilities (Orano Med)



Our Pipeline

- Differentiated **Assets** with focus in **Oncology**
- **MP0712 / Targeted radiotherapy** and **MP0533 / next-gen immune cell engagers**
- Early clinical readouts for patient value across indications with high unmet need

Continued Innovation in DARPin Discovery, Therapeutic Designs



Our Pipeline – Differentiated Therapeutics for Patient Value

PLATFORM	CANDIDATE	RESEARCH	PRE-CLINICAL	PHASE 1	PHASE 2	PHASE 3	
Radio-DARPin Therapy (RDT)	MP0712	SCLC & NECs <i>²¹²Pb x DLL3</i>		 oranomed Co-development*			
	MP0726	Ovarian Cancer <i>²¹²Pb x MSLN</i>		 oranomed Co-development*			
	Undisclosed Programs (Solid Tumors)	Radio - C					
		Radio - D					
Radio - E							
Next-Gen Immune Cell Engagers	MP0317	Advanced Solid Tumors <i>FAP x CD40</i>					
	MP0533	r/r AML and AML/MDS <i>CD33 x CD123 x CD70 x CD3</i>					
	Switch-DARPin T Cell Engager	<i>CD3 x CD2 x MSLN x EpCAM</i>					
	MP0621 (Switch-DARPin)	HSCT <i>cKit x CD16a x CD47</i>					

Radio-DARPin

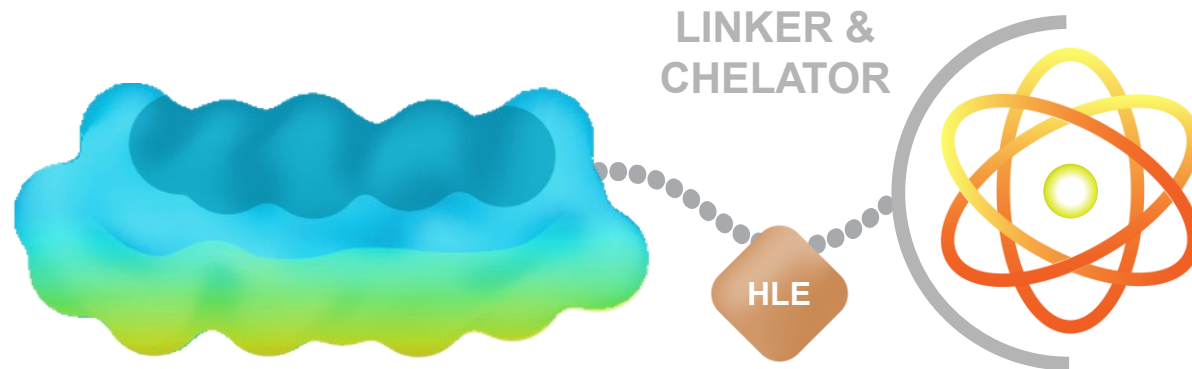
- Ideal vectors for precise delivery of potent radio-isotopes
- Potential to unlock broad target space across solid tumor indications



Radio-DARPin for Next-Gen Targeted Alpha Therapy

DARPin: IDEAL VECTOR FOR RADIOPHARMACEUTICALS

- Proven selective targeting
- High affinity, tumor retention
- Broad target space
- Small size



ALPHA-EMITTING THERAPEUTIC ISOTOPE

- Proven clinical efficacy
- High energy deposition

SURFACE ENGINEERING

- Enabled by high stability
- Reduce kidney accumulation

HALF-LIFE EXTENDER

- Tailored systemic exposure
- Promote tumor uptake

Global Partnership to Develop ^{212}Pb Radio-DARPin Therapeutics

Combining DARPin versatility with the power of ^{212}Pb for next-gen Targeted Alpha Therapy



MOLECULAR PARTNERS
PIONEERS of DARPin THERAPEUTICS



ORANO MED

PIONEERS of TARGETED ALPHA THERAPY



FULL VALUE CHAIN PARTNERSHIP

World class technologies & capabilities combined



INDIANA, US:
Industrial scale manufacturing
Global shipping hub
ATLab US

TEXAS, US:
Preclinical development
GMP supply for early
clinical phases

SWITZERLAND:
Preclinical assessment
DARPin engine, fast &
high throughput

FRANCE:
 ^{212}Pb starting
material
ATLab Europe

Pipeline of ten ^{212}Pb radiotherapy products

- 1 ^{212}Pb x DLL3 **MP0712**
- 2 ^{212}Pb x MSLN **MP0726**
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

4 Radio-DARPin programs
50:50 cost and share split

2 MP-owned programs
with opt-in option for OM for
50:50 cost:share split

4 MP-owned programs

Our Scientific Advisory Board to Accelerate Development of Targeted Radiotherapeutics



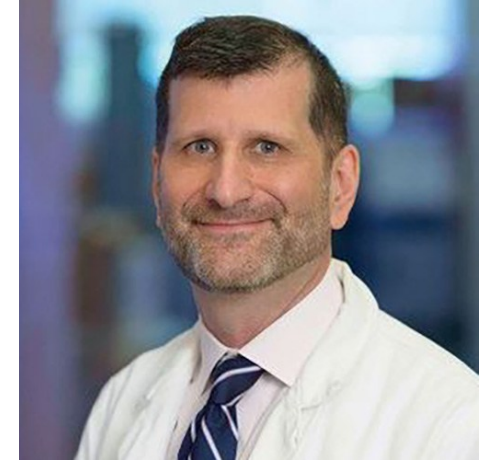
Ken Herrmann, M.D.
Chair



James Cook
Member



Jason Lewis, Ph.D.
Member



Michael Morris
Member

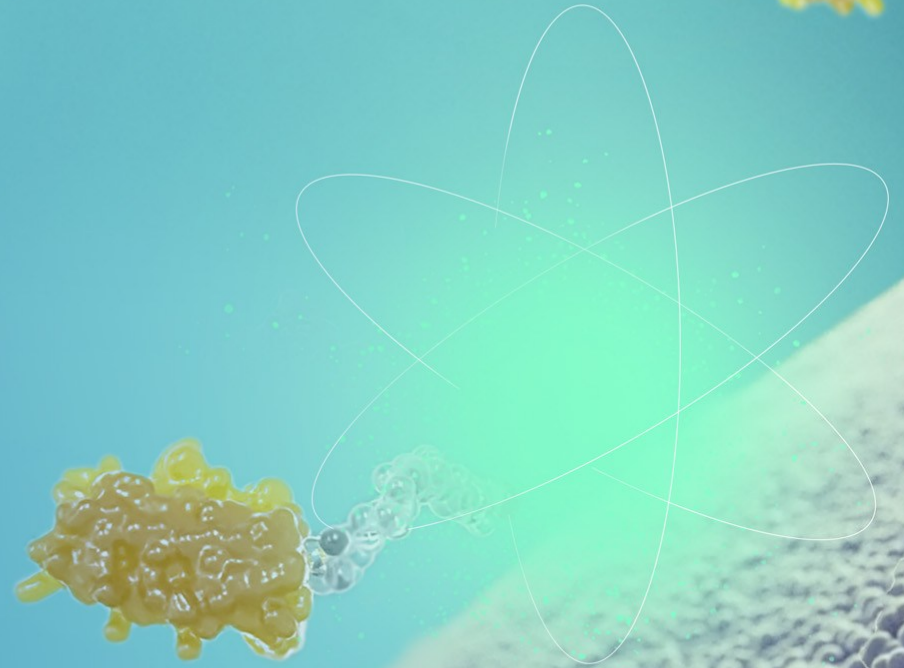
- Chaired by Prof. Ken Herrmann, M.D., globally renowned expert in the field of nuclear medicine
- Other Board members bring significant clinical and industry expertise, supporting transition from early clinical validation to strategic development



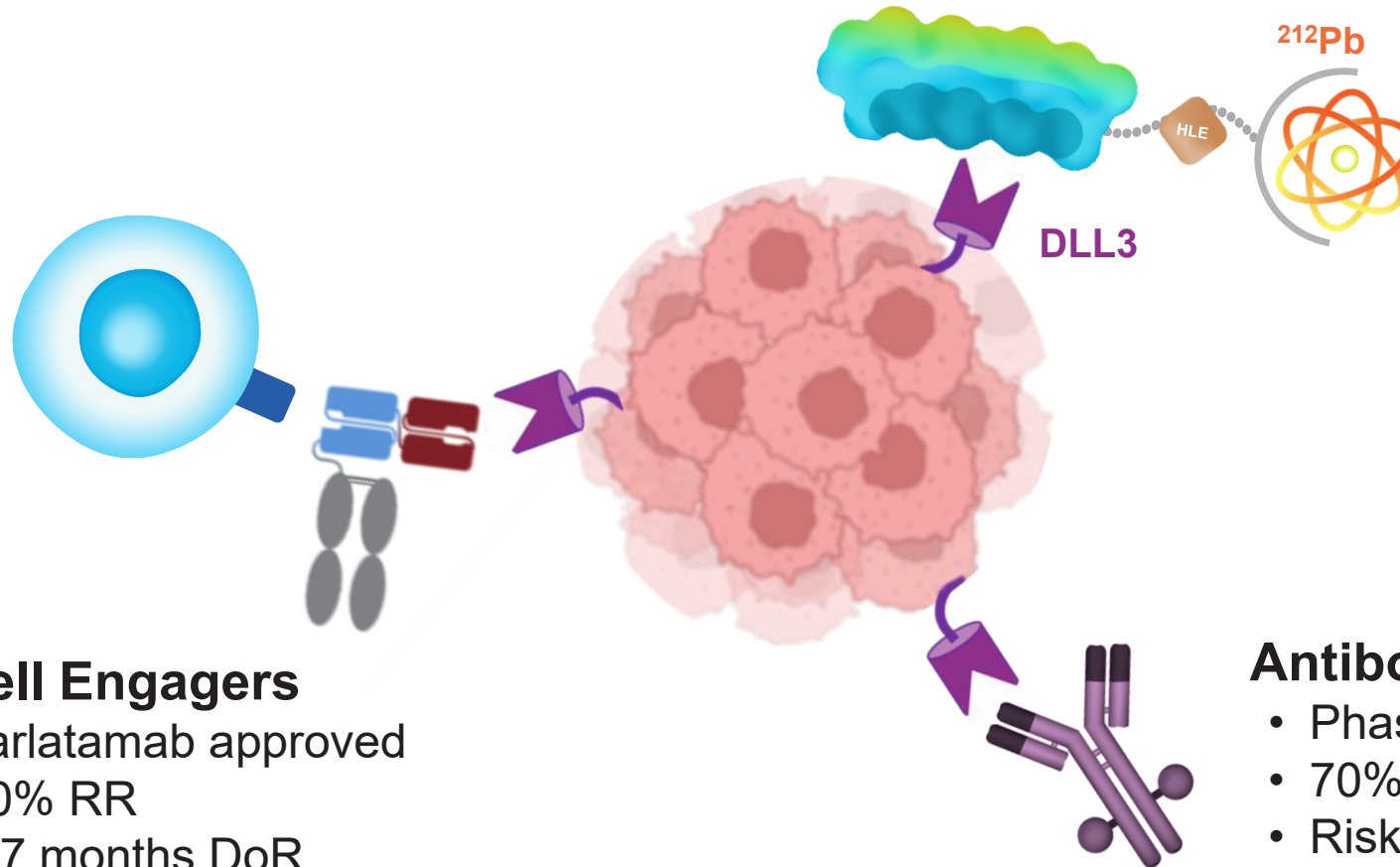
MP0712

Targeted Radiotherapy for Lung Cancer

- Specific tumor uptake reported in initial human images
- Phase 1/2a in US open, early data in 2026



MP0712: Why DLL3-Targeting Radiotherapy for SCLC



Radiotherapy (MP0712)

- Phase 0/1
- SCLC highly radio-sensitive
- Manageable side effects
- Combinable with other MoAs

T Cell Engagers

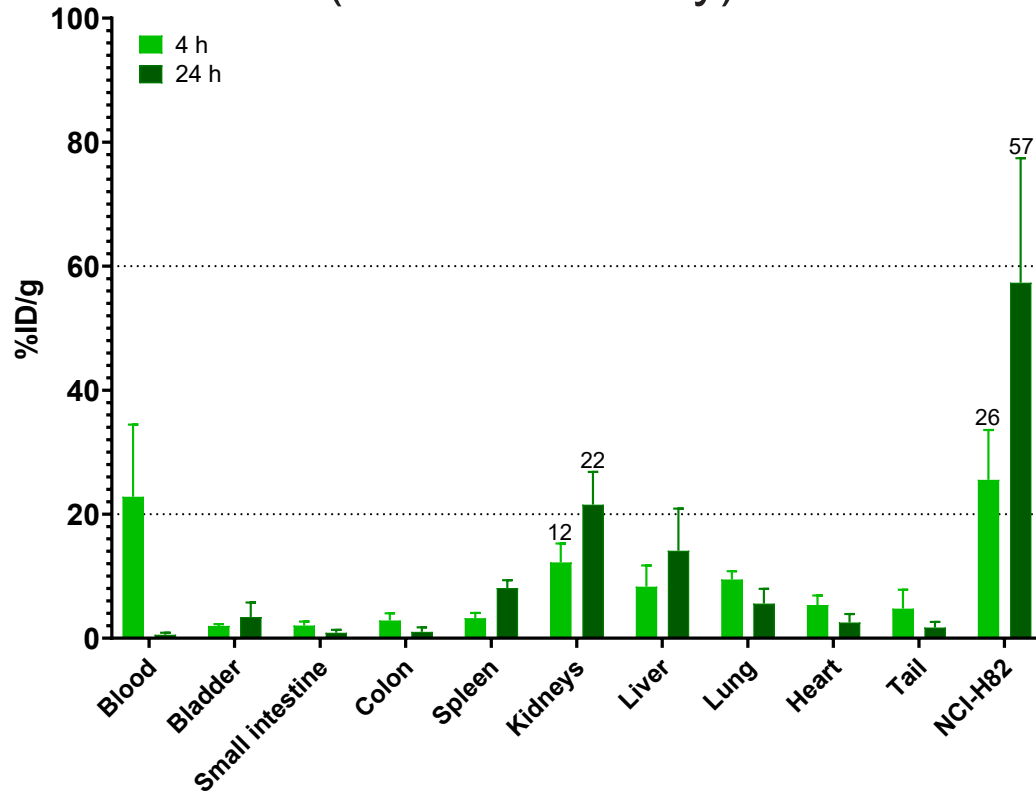
- Tarlatamab approved
- 40% RR
- 9.7 months DoR
- Substantial side effects

Antibody-Drug Conjugates

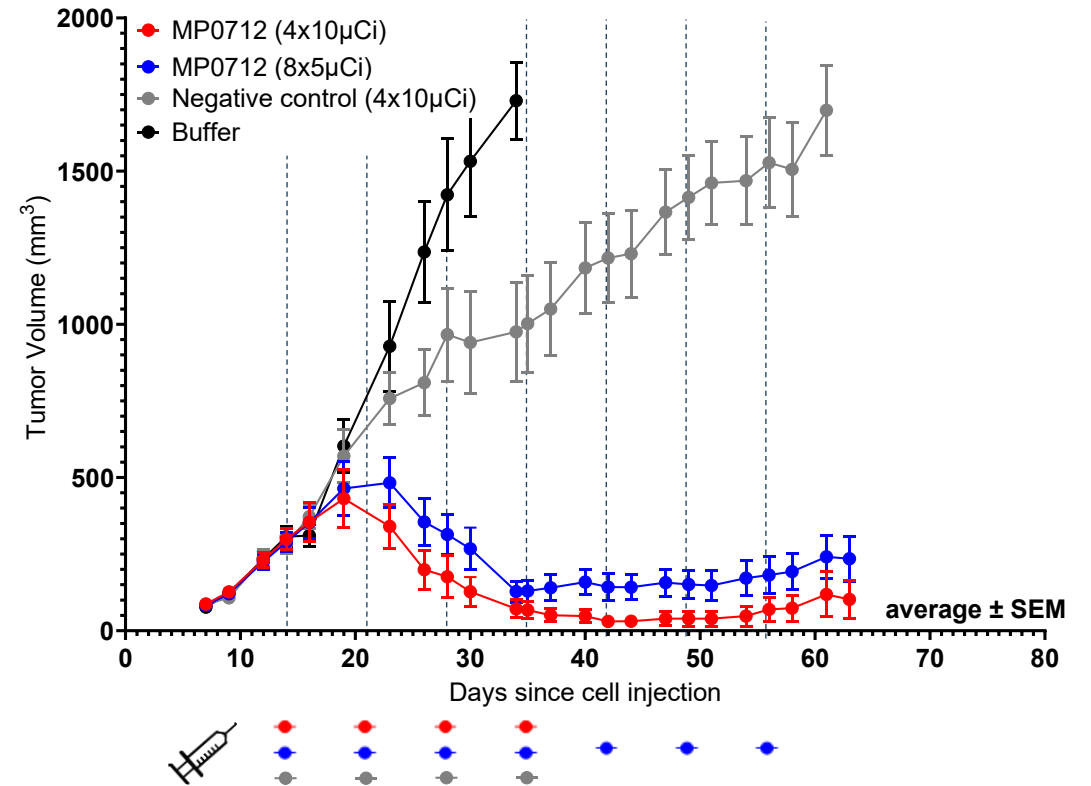
- Phase 1/2
- 70% RR
- Risk of chemo-resistance
- Manageable side effects

MP0712: Potent Efficacy at Clinically-Relevant Dose in Mice

High Tumor Accumulation (Tumor > Kidney)

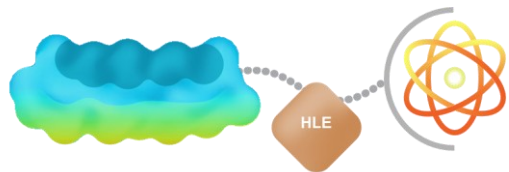
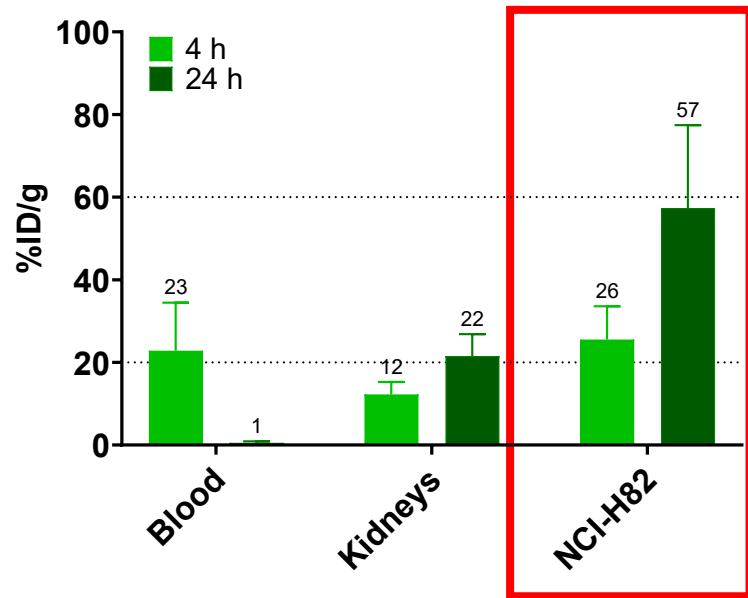


Reduction of Established Tumors

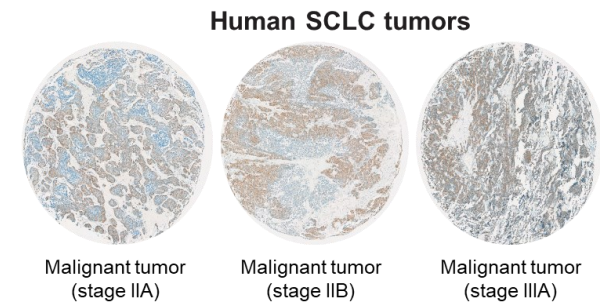
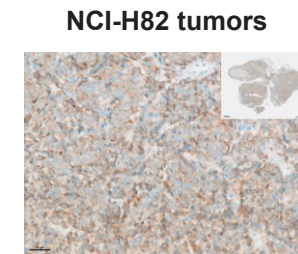
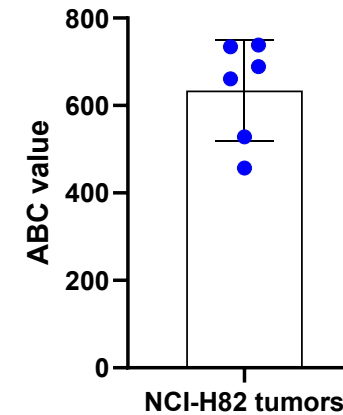
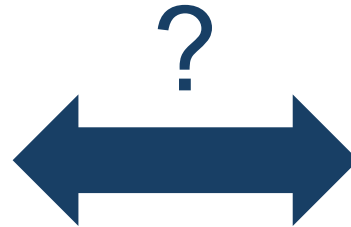


Targeting DLL3: Why do we see High Tumor Uptake, Despite the low Copy Number

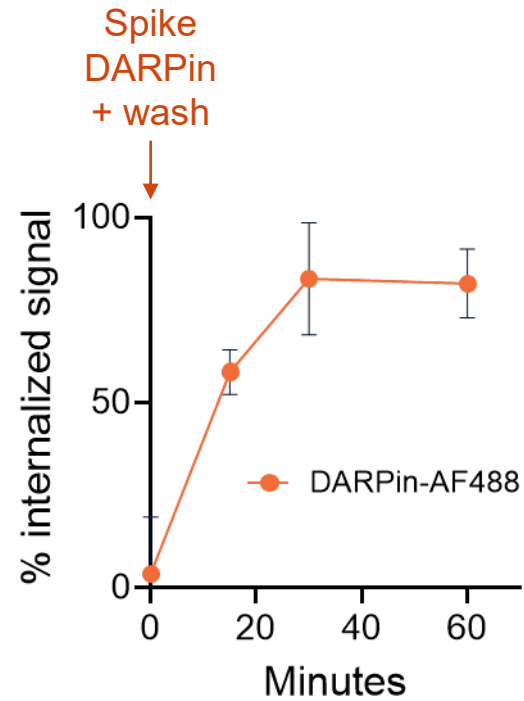
High Tumor Accumulation (MP0712: Tumor > Kidney)



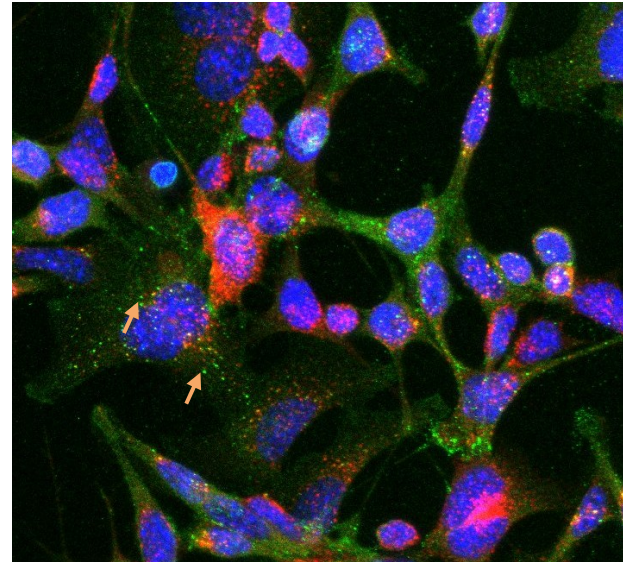
Low DLL3 Density on Tumor Cells (of <1000 receptors/cell)



MP0712-DLL3 DARPin is Rapidly Internalized and Accumulates Intracellularly in DLL3-expressing Cells *in vitro*

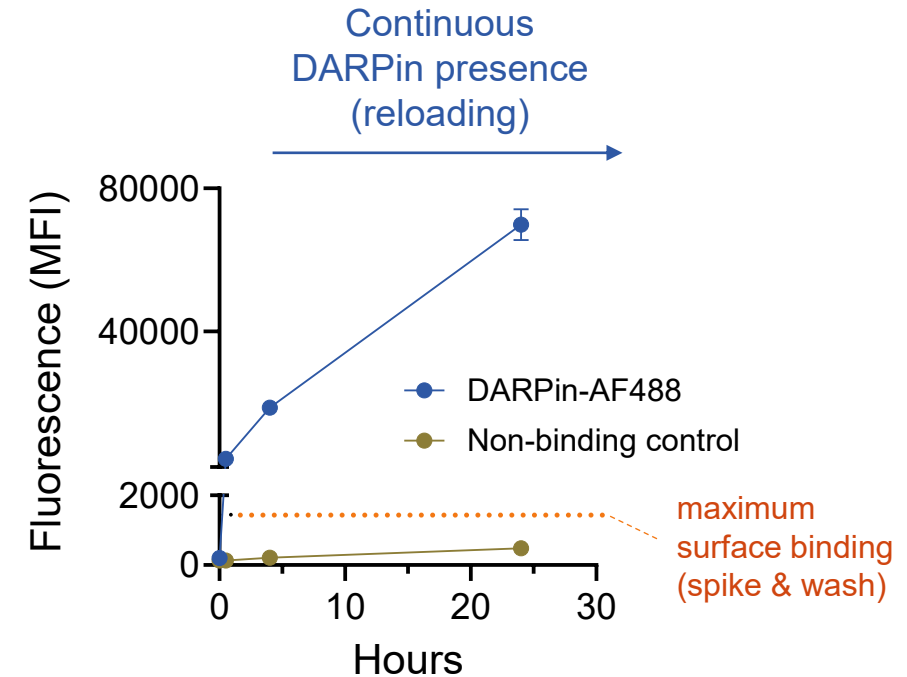


Surface-bound DLL3-DARPin is rapidly internalized into SHP-77 human SCLC cells*



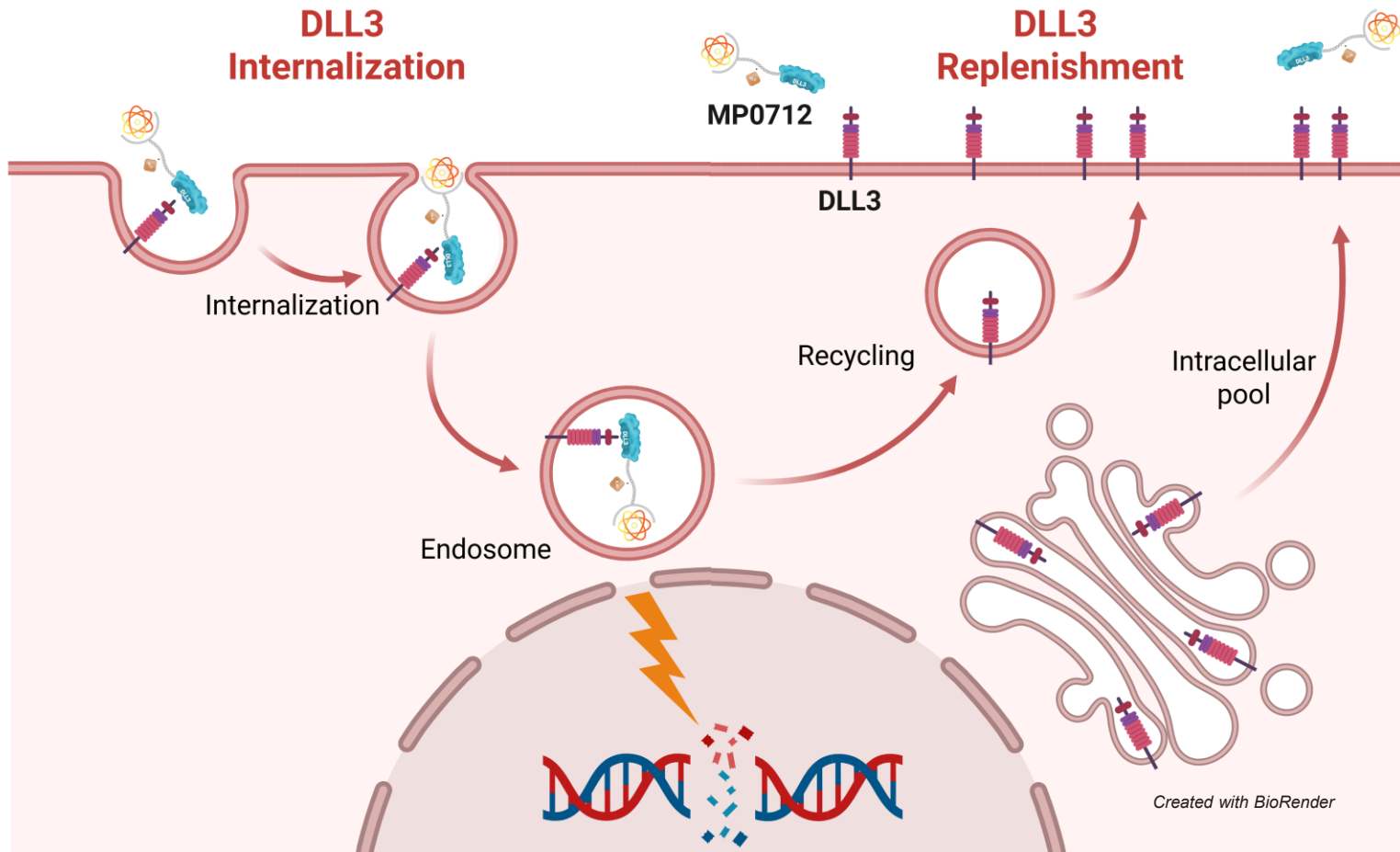
DAPI DARPin EEA1

Internalized DLL3-DARPin shows significant co-localization to the endosomal compartment in hDLL3-HEK cells**



DLL3-DARPin accumulates in hDLL3-HEK cells over time (beyond the bound fraction at saturation)*

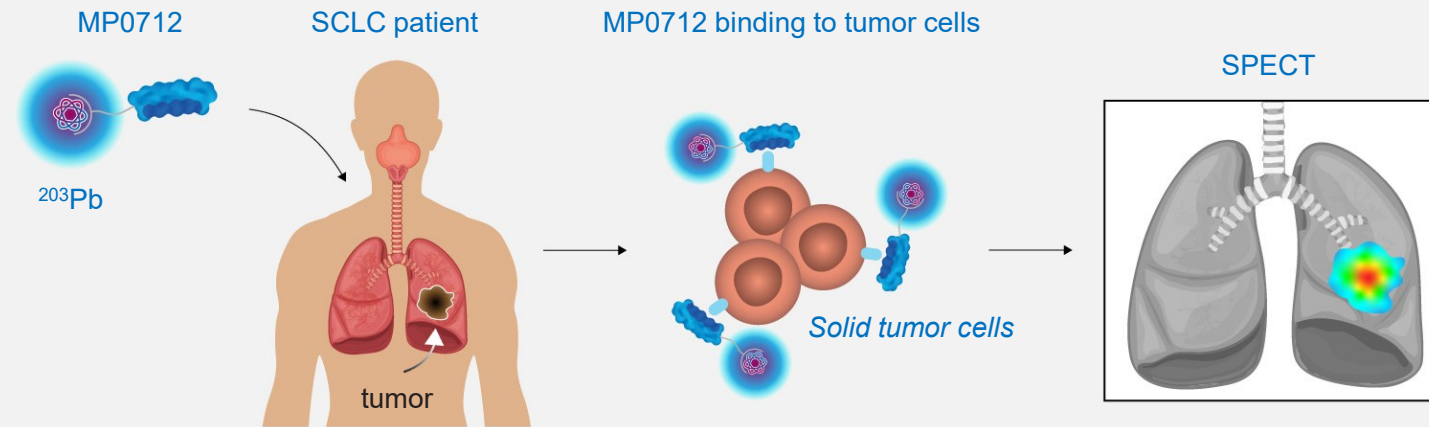
Hypothesis: Free Surface DLL3 is Continually Replenished for Binding and Internalization of MP0712



MP0712 – format selection:
Optimized half-life and DARPin binder to exploit internalization & replenishment of DLL3 for radio-payload accumulation in SCLC cells

MP0712 Development Pathway

1. Imaging

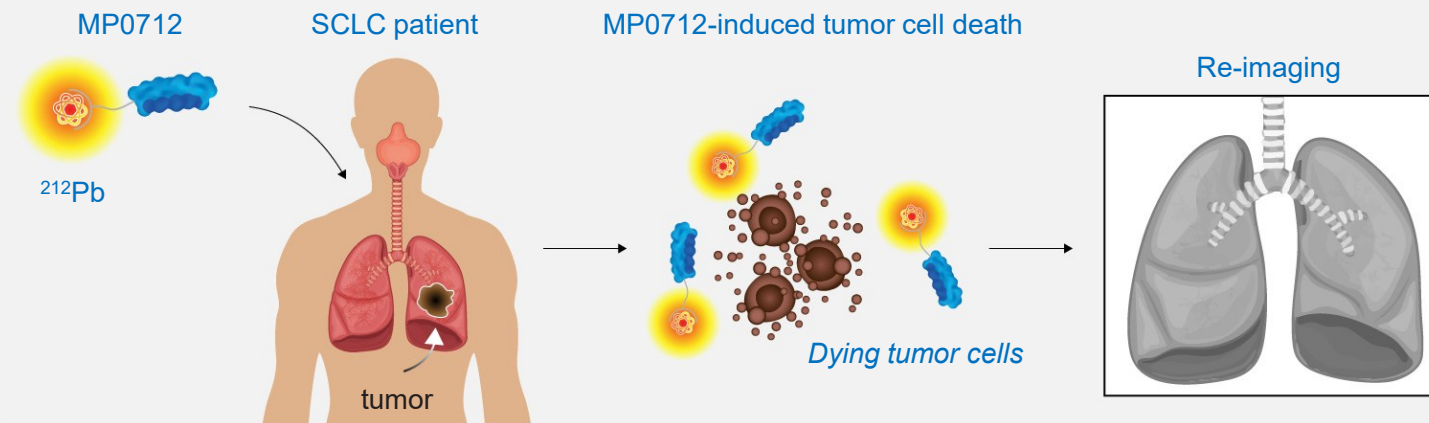


Named Patient Access Program:

- Imaging and dosimetry with ^{203}Pb
- Option for treatment with ^{212}Pb

*Request from NuMeRI, Pretoria, South Africa**

2. Treatment



Phase 1/2a Study:

- Safety of ^{212}Pb
- Efficacy signals
- Includes an imaging and dosimetry step with ^{203}Pb

SPECT/CT Imaging of ^{203}Pb -MP0712 in SCLC: A Case Example from a Named Patient Access Program in South Africa

Patient characteristics

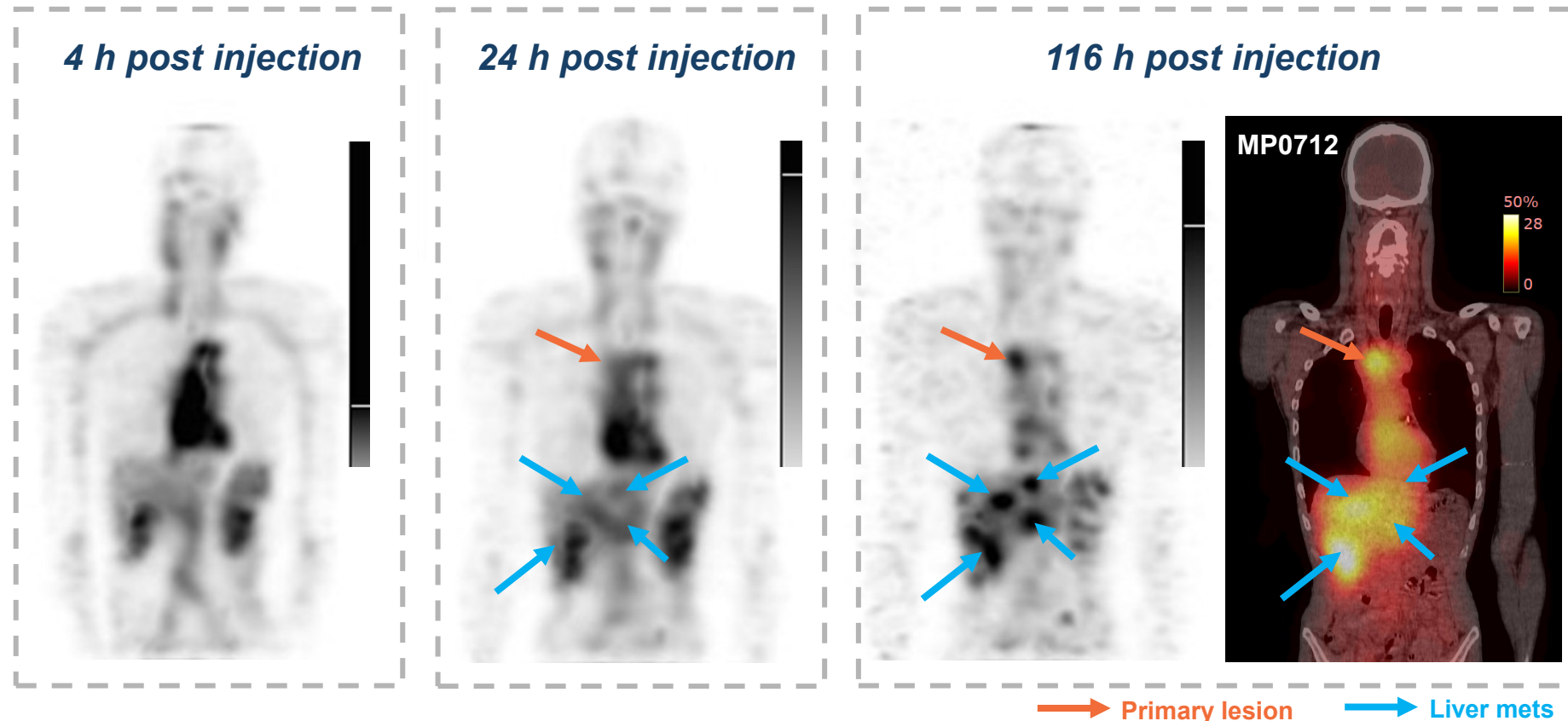
- 69-year-old male (smoker)
- Small cell neuroendocrine carcinoma of the lung
- Stage III at referral, primary tumor located at superior mediastinum

Treatment history

- Radiotherapy and chemotherapy

Dosing & Result

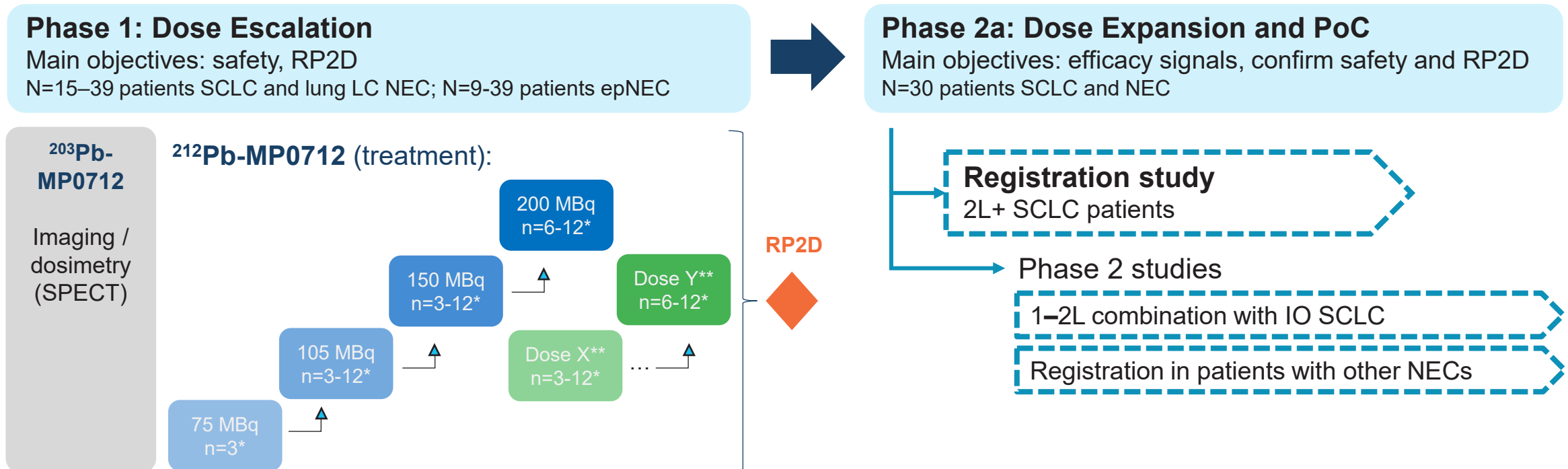
- 5.1 mCi of ^{203}Pb -MP0712
- Stage IV by MP0712 - SPECT with 4 liver mets



➤ Initial high blood pool, followed by specific uptake in primary and metastatic lesions over time, and limited accumulation in healthy organs in line with MP0712 MoA

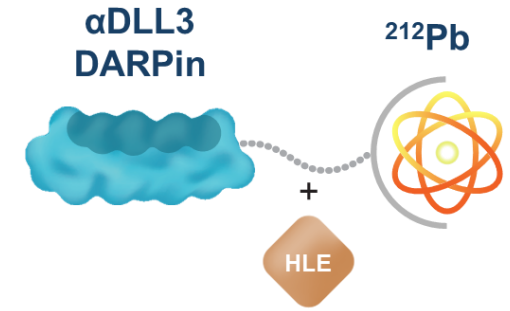
MP0712 Phase 1/2a Study for SCLC and other NECs

- First-in-Human, US multicenter, Phase 1/2a study of MP0712 monotherapy
- Patients with small cell lung cancer (SCLC) and other neuro-endocrine cancers (NECs)
 - Every patient will be imaged (^{203}Pb) before treatment (^{212}Pb)
 - Patient pre-selection on DLL3 expression: not planned for SCLC and LC NEC of lung, foreseen for epNEC



* Evaluable patients (Bayesian Logistic Regression Model guided dose escalation)

MP0712 Conclusions & Outlook



MP0712: ^{212}Pb x DLL3 Radio-DARPin therapeutic candidate for SCLC

- Strong pre-clinical data with attractive BioD, efficacy & safety profile
- High tumor uptake leveraging rapid internalization & replenishment of DLL3
- Initial human images* show specific uptake in primary & metastatic tumor lesions supporting intended MoA

Outlook

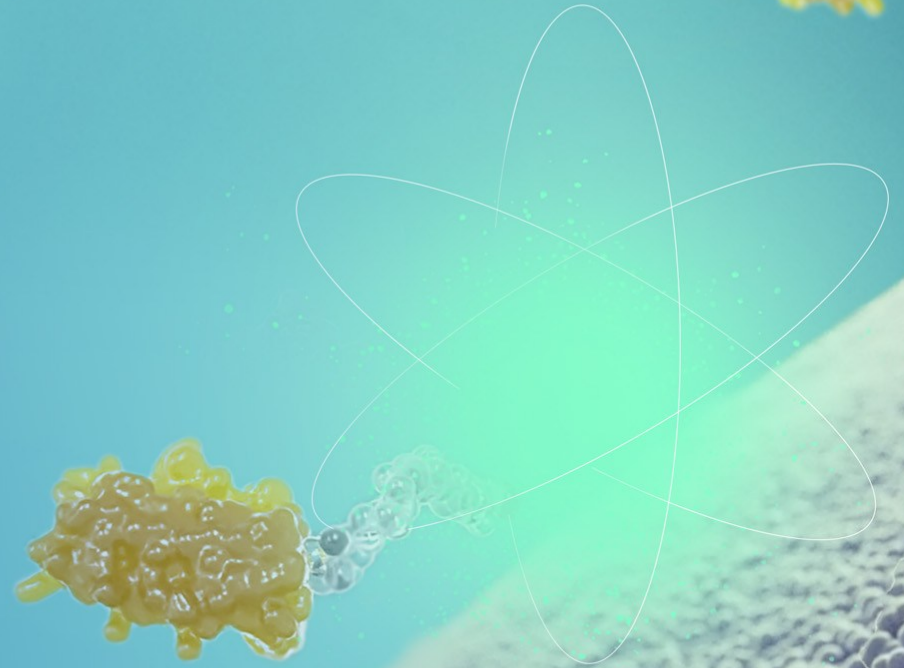
- Full ^{203}Pb -MP0712 compassionate care imaging & dosimetry data at TWC in January 2026
- MP0712 Phase 1 open in US, first patient first dose expected in Q1'26
- Initial data from Phase 1 in 2026



MP0726

Targeted Radiotherapy for Ovarian Cancer

- Targeting membrane-bound MSLN
- Progressing to FIH imaging



^{212}Pb x MSLN Targeted Radio-DARPin for Ovarian Cancer (OC)

Combining distinctive DARPin features with the power of ^{212}Pb for next-gen targeted alpha therapy

OC: high medical need and marginal progress

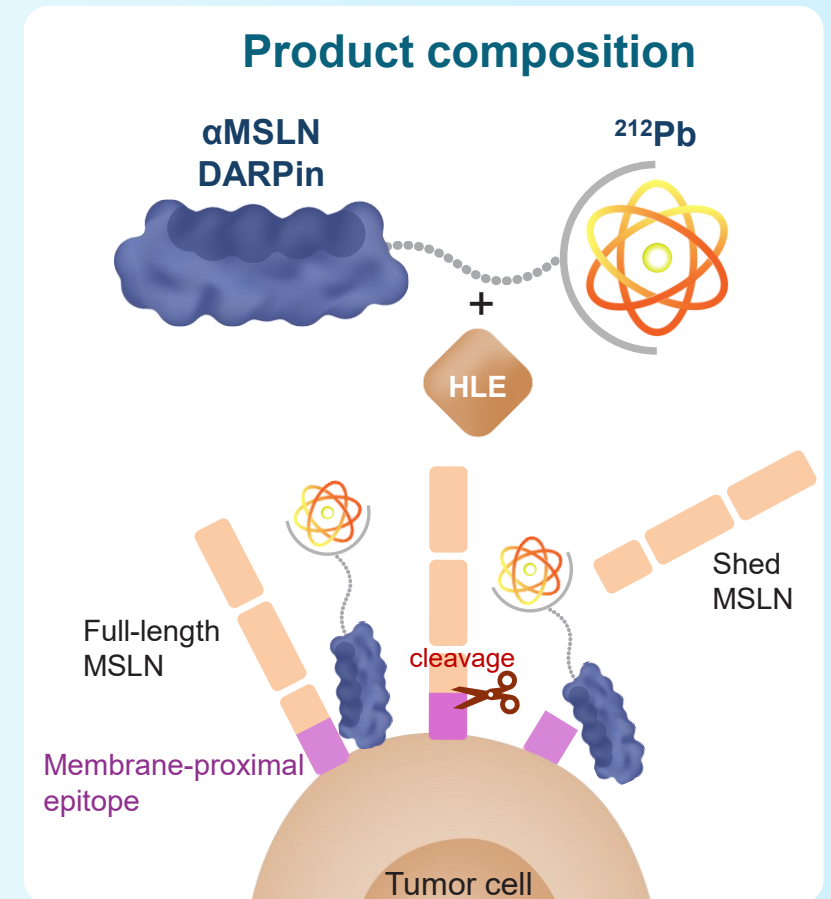
- > 50% patients die within 5 years post-diagnosis (diagnosis often in late stage)
- Poor treatment options: ~80% recurrence rate post 1L chemo, limited 2L options (FR α -targeted Tx relevant for only 40% patients)

MSLN: a promising target for OC as 1st indication

- Highly expressed in OC (>80% prevalence), expression maintained in metastases
- Shed MSLN detected in serum of OC patients, might limit efficacy of MSLN-targeted therapies^{1,2,3,4} (e.g., CAR T/NK, ADC, TCE in development)

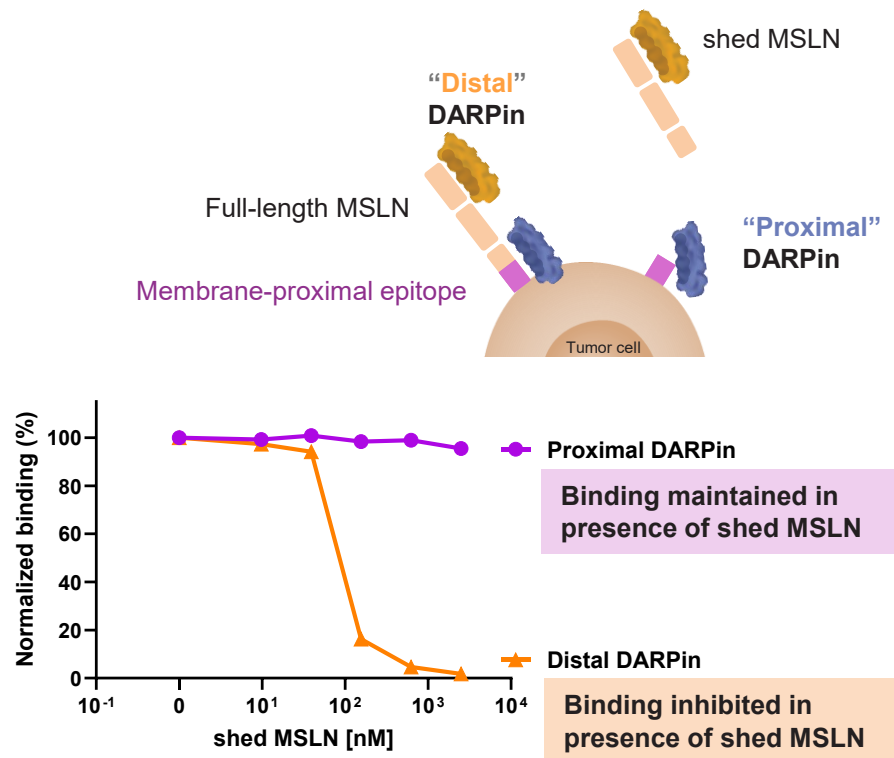
RDT x MSLN: targeted delivery of alpha radiation with ^{212}Pb

- MSLN DARPin targets **membrane-proximal epitope** (and not shed MSLN)
- ^{212}Pb payload: high energy alpha emissions in short time frame
- Potential for combinations with immunotherapy (incl. next-gen TCEs)

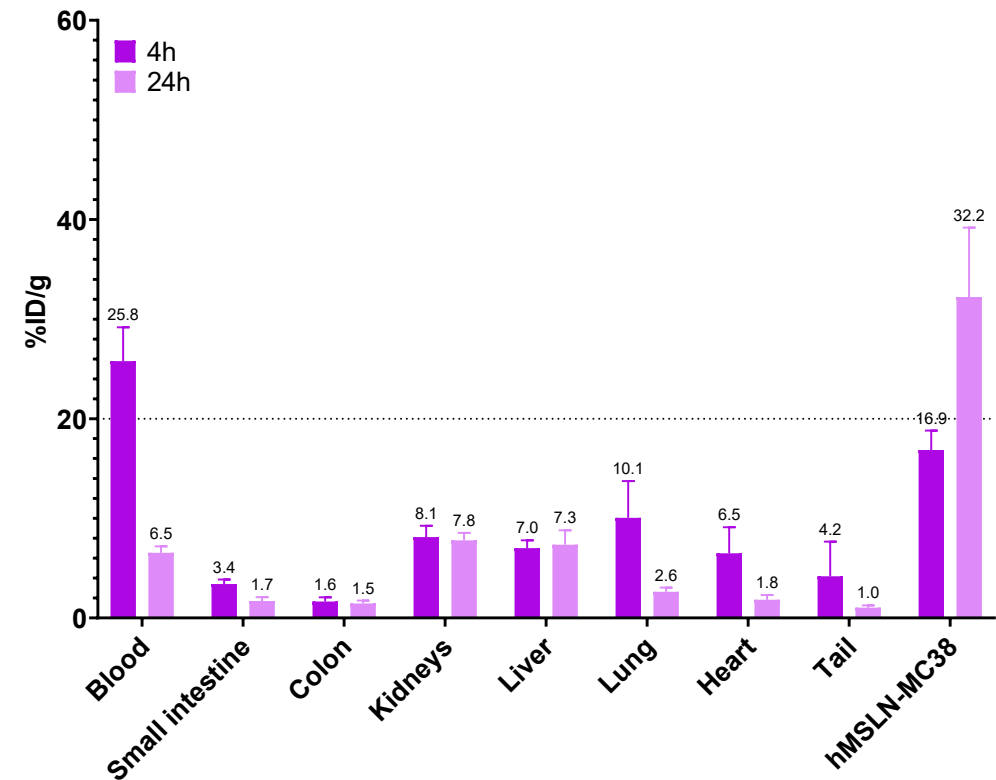


MP0726: ^{212}Pb x MSLN Radio-DARPin for Ovarian Cancer

Cell binding maintained despite shed MSLN



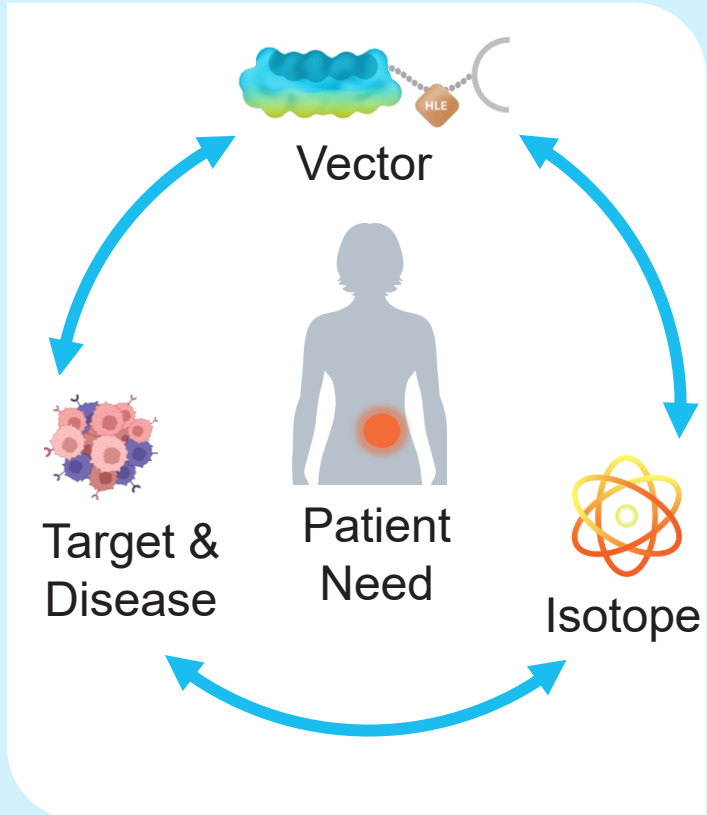
Favorable biodistribution in hMSLN-MC38 tumor model



Outlook: Progressing MP0726 to FIH imaging

Outlook & Conclusions – Radio-DARPin Therapeutics

Radio-DARPin Therapeutics



MP0712

DLL3 x ²¹²Pb
SCLC & NECs

Overcome low target density on tumor cell

MP0726

MSLN x ²¹²Pb
Ovarian Cancer

Selectivity for membrane-bound antigen

Ongoing projects

Nominate 1–2 for
FIH imaging mid
2026

Radio C

Overcome low target density on tumor cell

Radio D

Exquisitely low kidney uptake

Radio E

Address high homology to receptors on healthy tissues

Radio F

...

Next projects

Preparation of building
blocks for research
focus in 2027

Targets A+B

Targets A+C

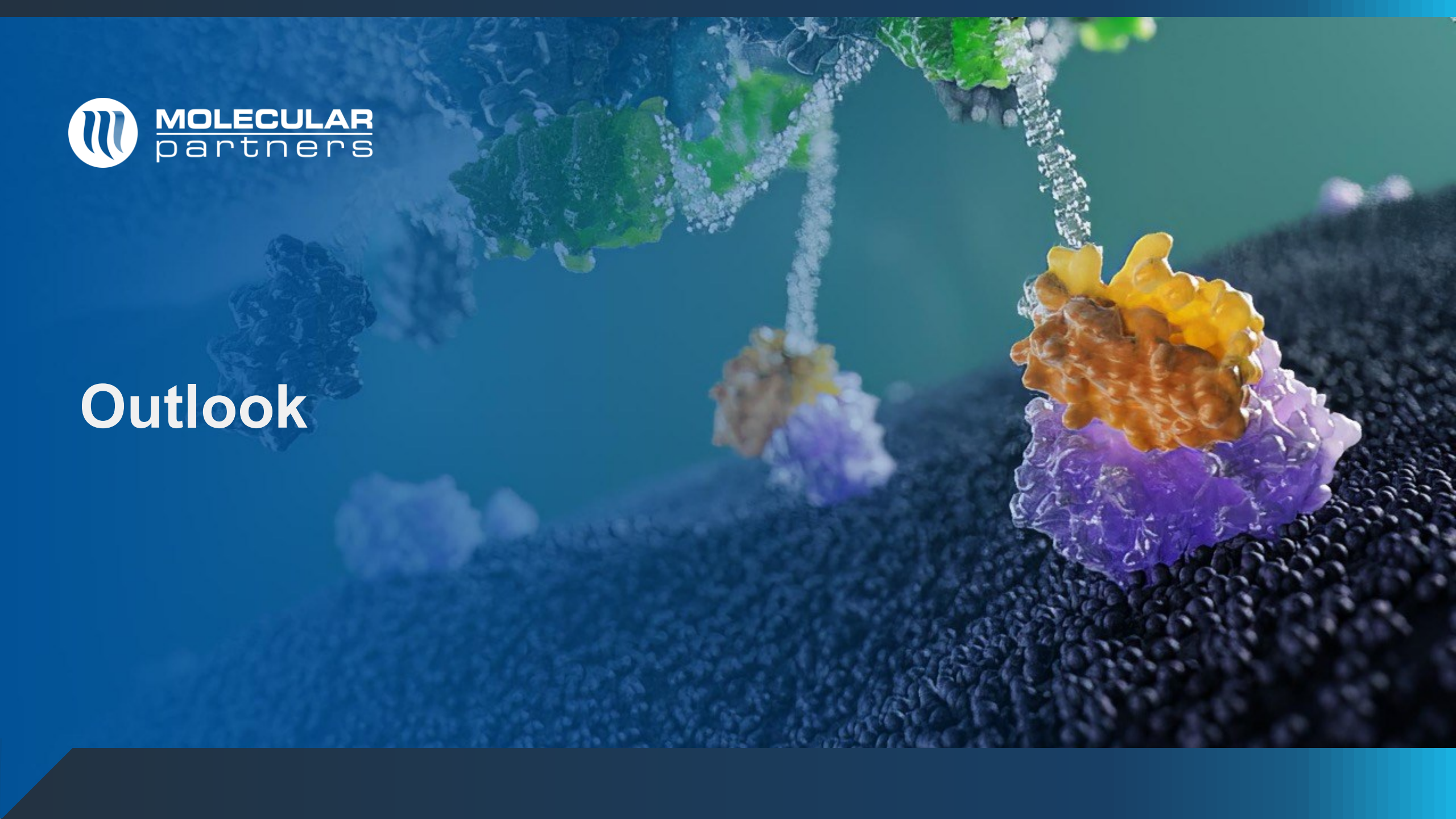
Targets B+C

Target E

**Multi-specifics to address
tumor heterogeneity**



Outlook



Outlook and Upcoming Milestones in 2026

MP0712

- **First-in-Human Phase 1 study open in US, first patient dosing imminent**
- Full imaging and dosimetry data from South Africa presentation at TWC in January 2026
- Initial safety data from Phase 1 anticipated in H1 2026, initial activity in H2 2026

Radio-DARPin Therapy (RDT)

- Progress **MP0726 towards FIH imaging**
- Nomination of new RDT programs mid 2026

MP0533

- Conclusion of dose escalation, update in H1 2026
- **Investigator-initiated combo trials** under discussion

Switch-DARPin

- **Lead candidate selection** in H1 2026, update at AACR 2026

MP0317

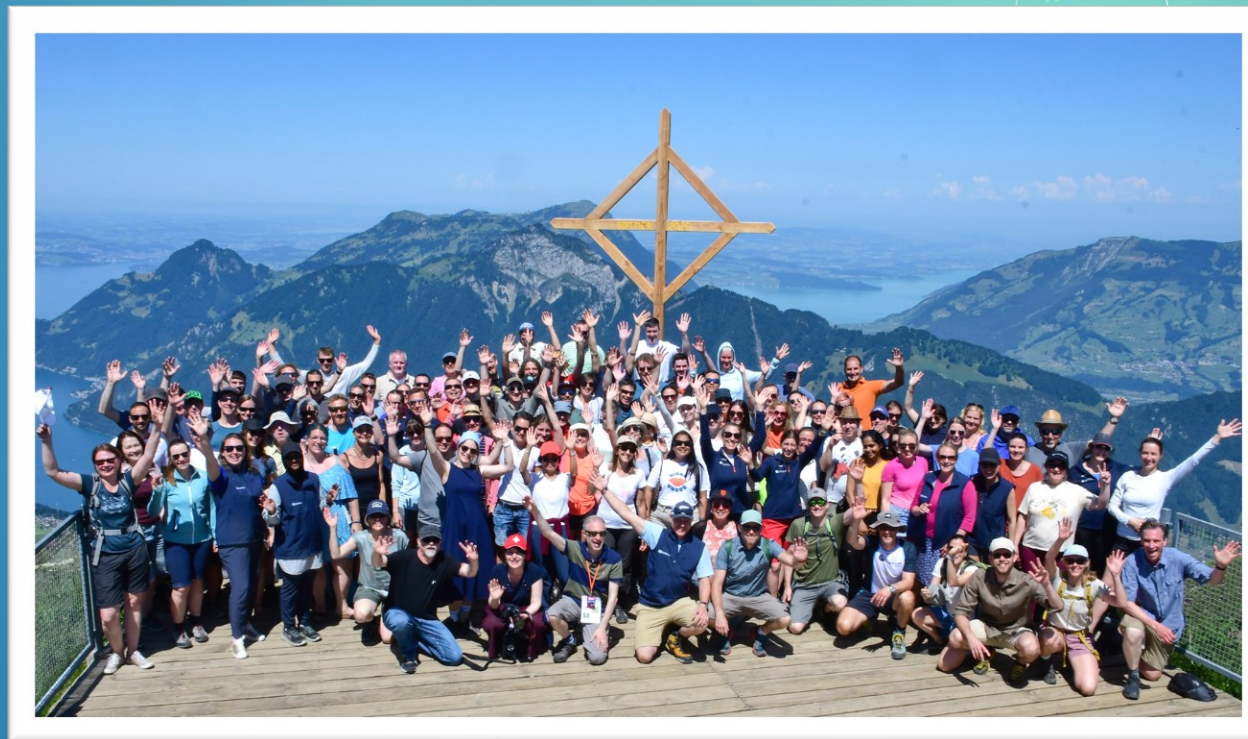
- **Phase 2 combo study started** in France, now dosing patients

Cash USD ~116 M (CHF ~93 M*, incl. short-term time deposits) ensures funding until 2028



*Twenty Years of Pioneering
DARPin Therapeutics for Patients*

Thank You



Our Team, Summer 2025

IMMUNE CELL



MP0317

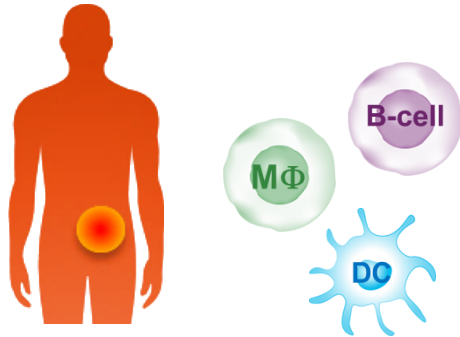
A FAP-localized CD40 agonist for local immune cell activation and TME modulation

- Phase 2 combo IIT ongoing in advanced biliary tract cancer

TUMOR CELL

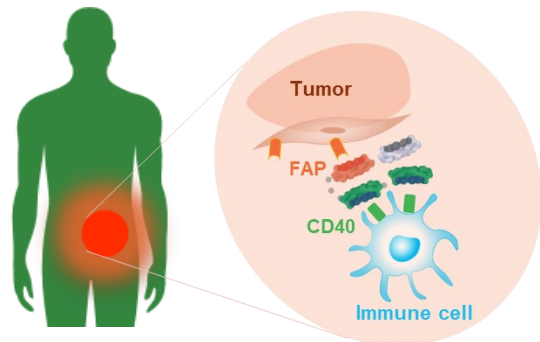
MP0317: Unlocking CD40 Activity Through Local Activation

Problem: Toxicity of CD40 antibodies has so far limited their activity

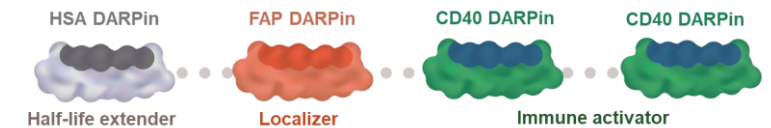


- **CD40 agonists** can activate **B cells, DCs and MΦ** to enhance the efficacy of IO drugs, especially in “cold tumors”
- **Systemic activation of CD40 via mAbs** has been hampered by **significant toxicities**, therefore **limiting their potential of reaching a therapeutically active dose**

Solution: MP0317 – FAP-dependent tumor-localized CD40 activation

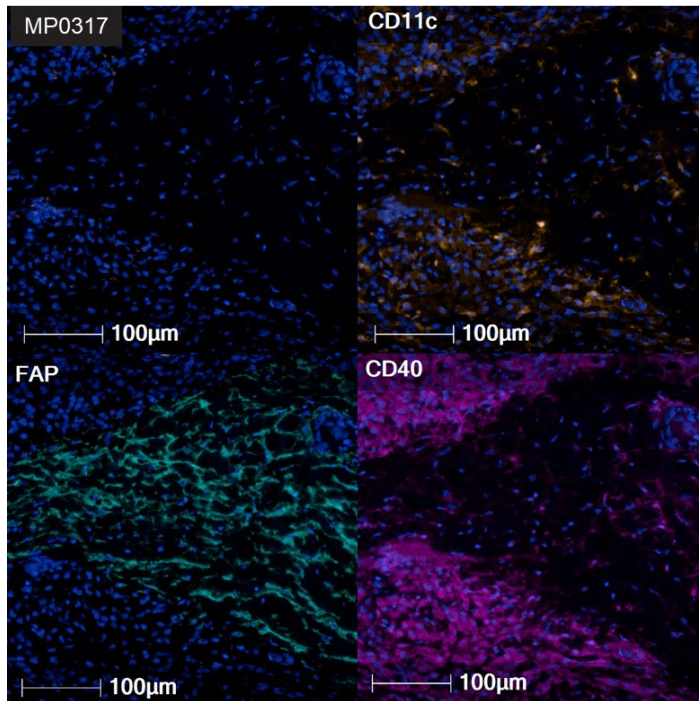


- **FAP is a validated tumor target** overexpressed in at least 28 different cancer types and its expression is not downregulated during disease progression
- **MP0317** is designed to bind tumor-localized FAP and induce CD40-mediated **activation of immune cells in the tumor**, thereby overcoming systemic toxicity and allowing a **wider therapeutic dosing range**



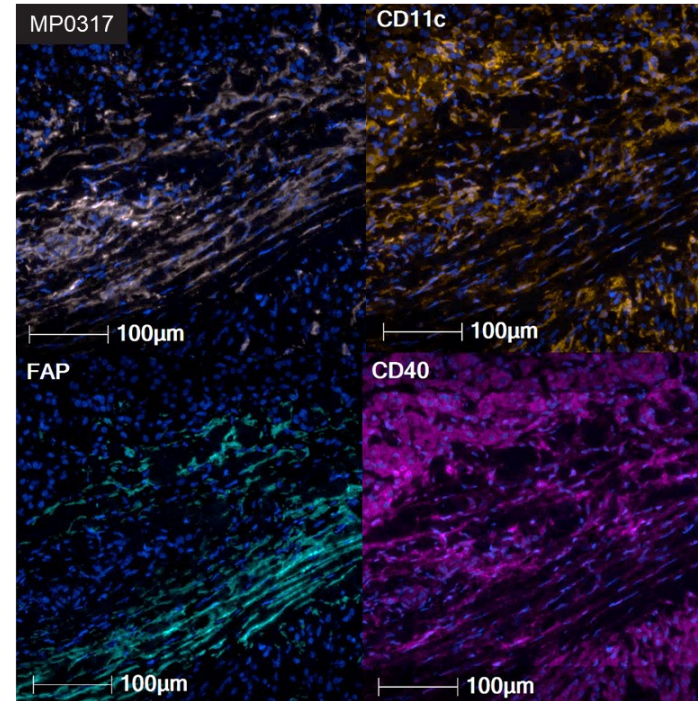
MP0317 Leads to Remodeling of Tumor Microenvironment

PRIOR TO TREATMENT



MP0317
DC
infiltration

CYCLE 2 DAY 8



High DC infiltration in FAP-positive tumor area in presence of MP0317

Summary of MP0317 Phase 1 Study

- **46 patients treated** in 9 cohorts
- **Favorable safety profile** across all tested dose cohorts up to highest planned dose (10 mg/kg)
- **Clinical evidence** of tumor-localized CD40 pathway and immune cell activation, leading to **tumor microenvironment remodeling**

MP0317 Phase 2 Combo Study in Advanced Biliary Tract Cancer

Study Objective (NCT07036380)

- Investigator-initiated, randomized, multicenter study to assess the clinical benefit (safety and efficacy) of MP0317 combined with standard of care (SoC) in 1st line advanced biliary tract cancer (cholangiocarcinoma)

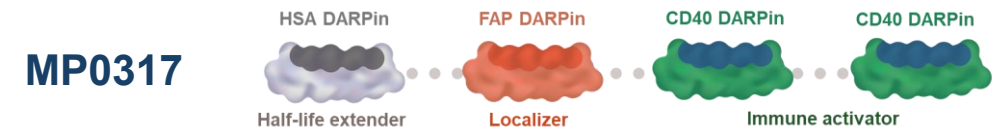
Background

- Why Cholangiocarcinoma: high FAP expression, immune suppressive TME**
- Hypothesis: MP0317 to enable SOC via TME remodeling
- SoC benchmark** (durvalumab (anti-PD-L1), plus gemcitabine/cisplatin): **12-month PFS rate ~24%**, median OS 12.8 months¹

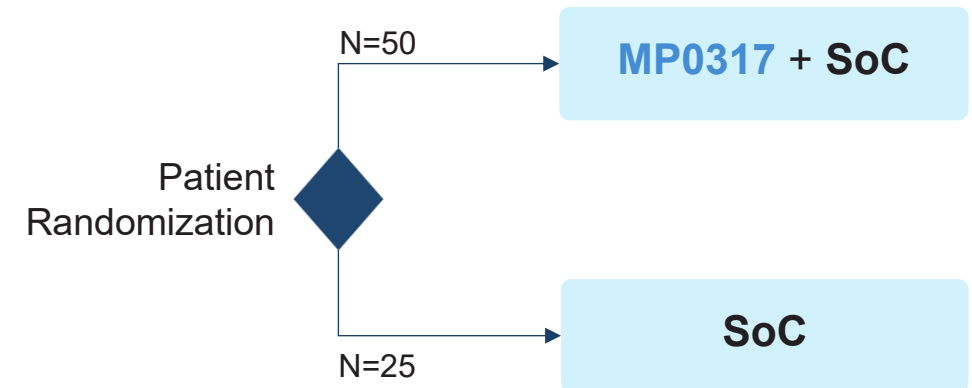
Outlook & Objective

- Increase duration of response (**12-month PFS rate ~36%**)
- Open label study & interim analysis by YE 2027

Ph2 Study Recruiting



Study design





T CELL

MP0533

Tetra-specific, Mutation-agnostic T-cell Engager for AML

- Phase 1/2a ongoing and validating dose level
- Decisional data in H1 2026 to inform next steps

AML CELL

MP0533: A Tetra-specific TCE for Consolidation Therapy in AML

Half-life Extension

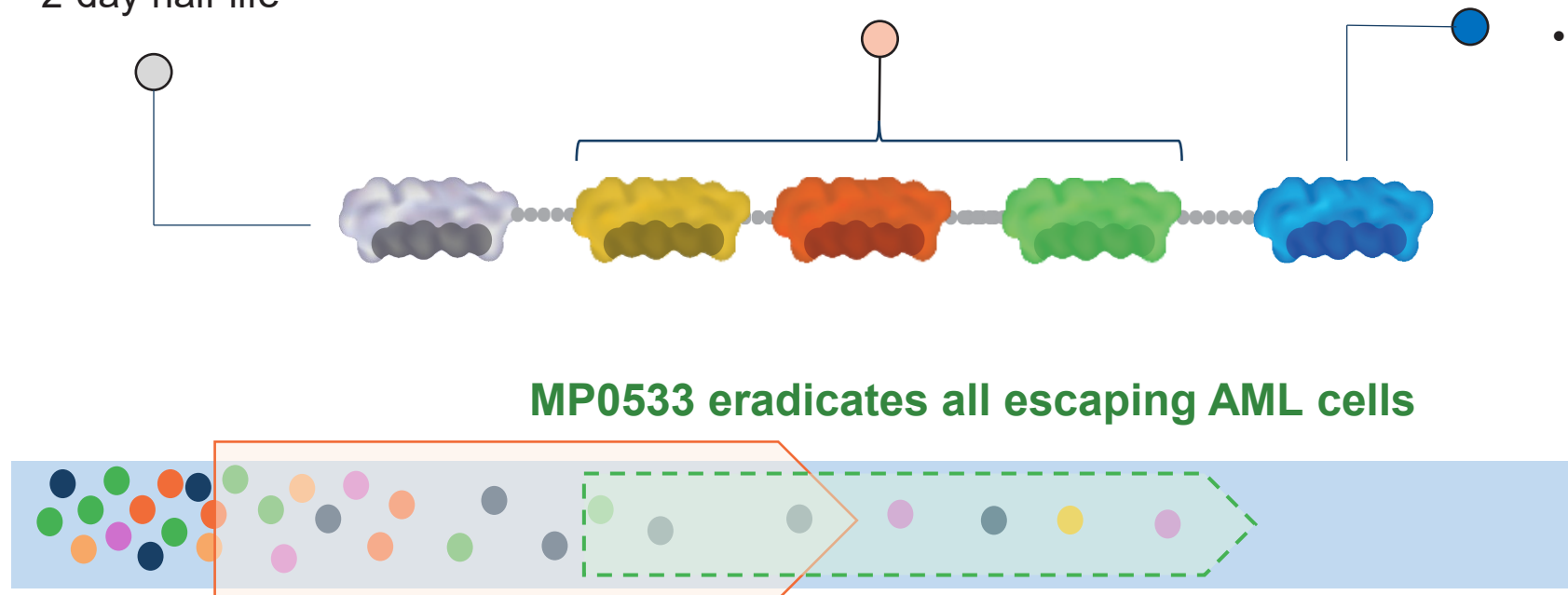
- 2 x HSA DARPins
- ~2-day half-life

CD33 x CD123 x CD70

- Broadest coverage of AML heterogeneity (3 antigens) addressing poly-clonality
- Selectivity for AML vs healthy cells

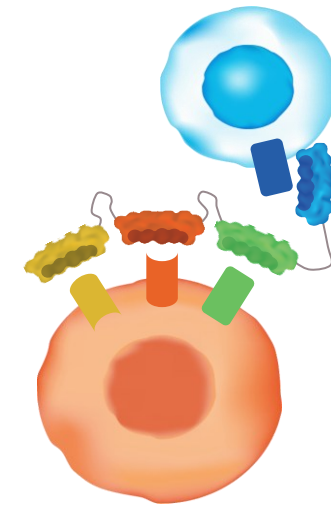
Anti-CD3

- T cell engager (TCE)
- Mutation agnostic AML killing mechanism



MP0533 eradicates all escaping AML cells

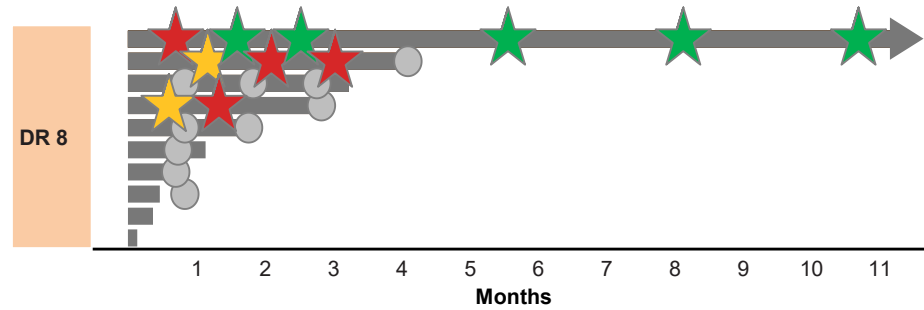
AML heterogeneity enables clones to evade SoC



Encouraging Clinical Responses in Patients with Low Disease Burden

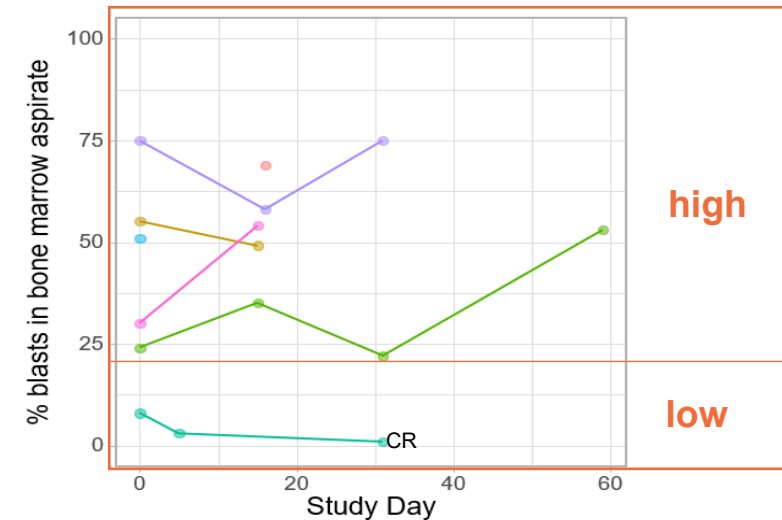
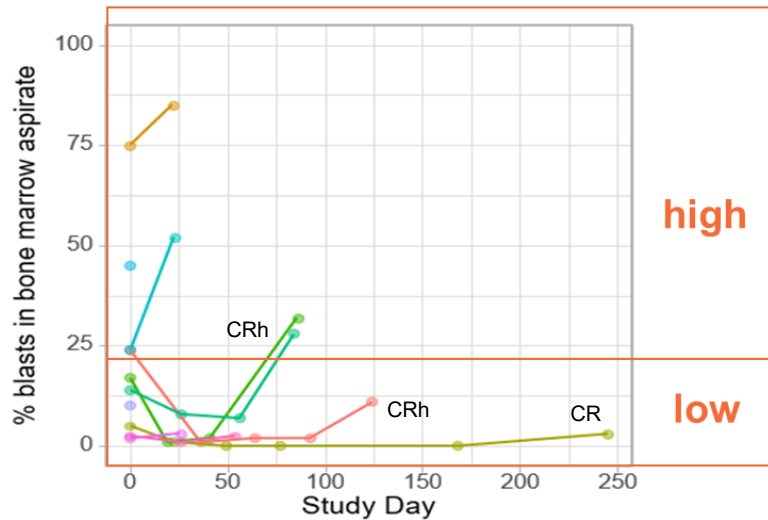
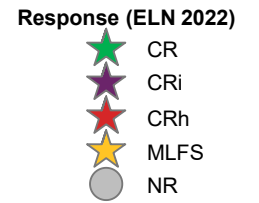
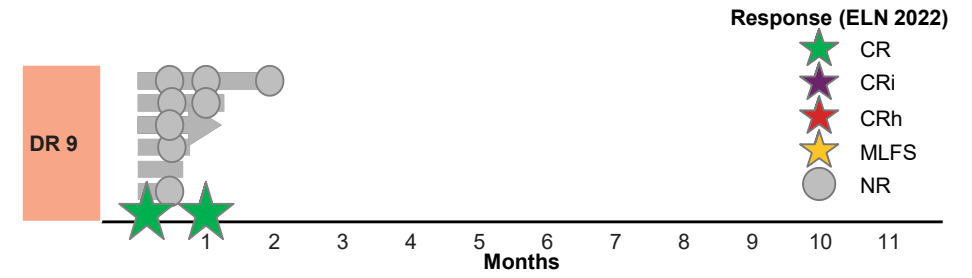
Intermediate densification (DR 8)

3 responders (of 8 patients), manageable safety



Further Densification (DR 9*)

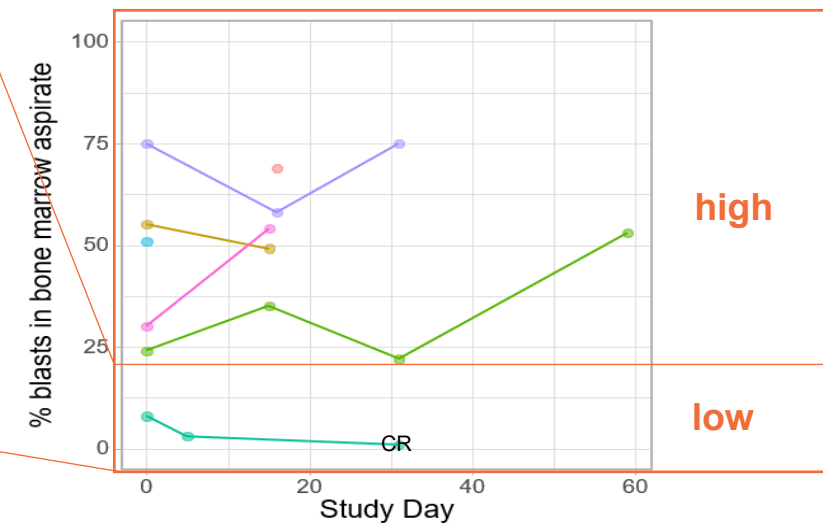
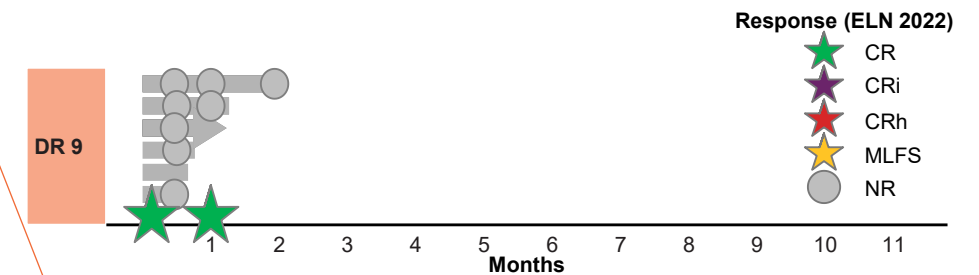
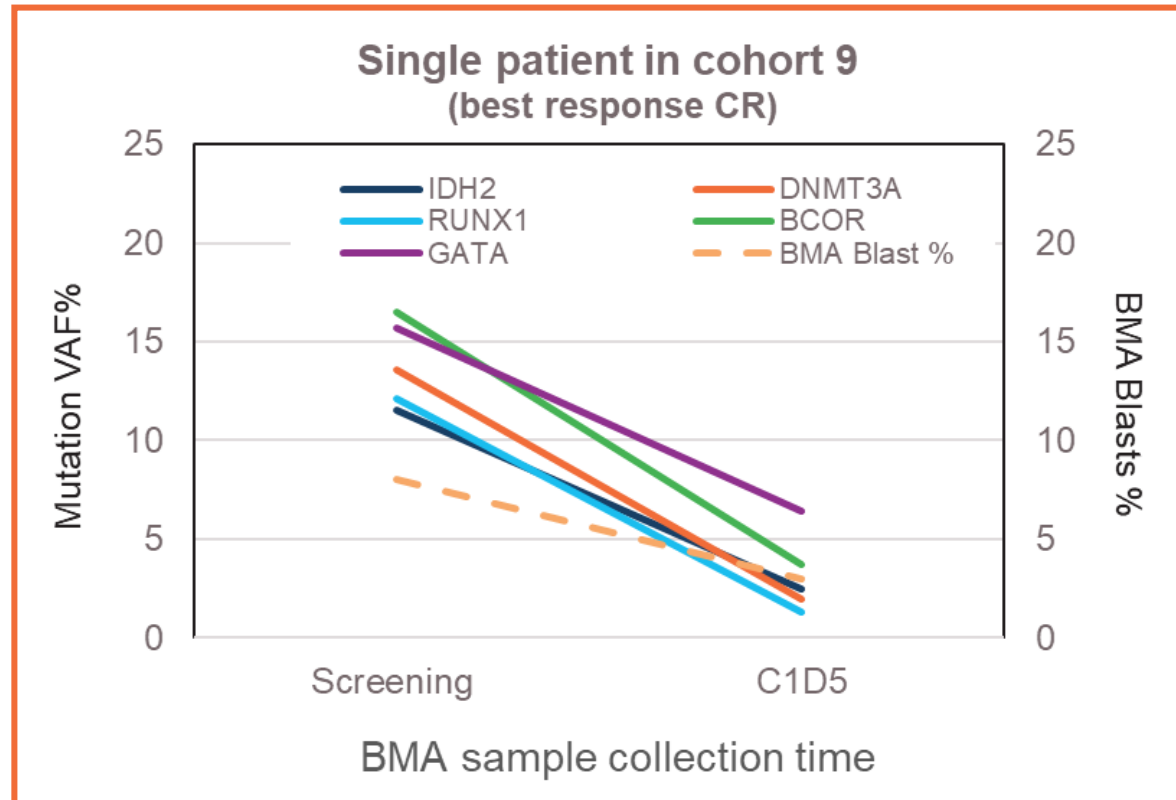
1 responder (of 7 patients), manageable safety



Mutation-agnostic AML-cell Killing in Patients

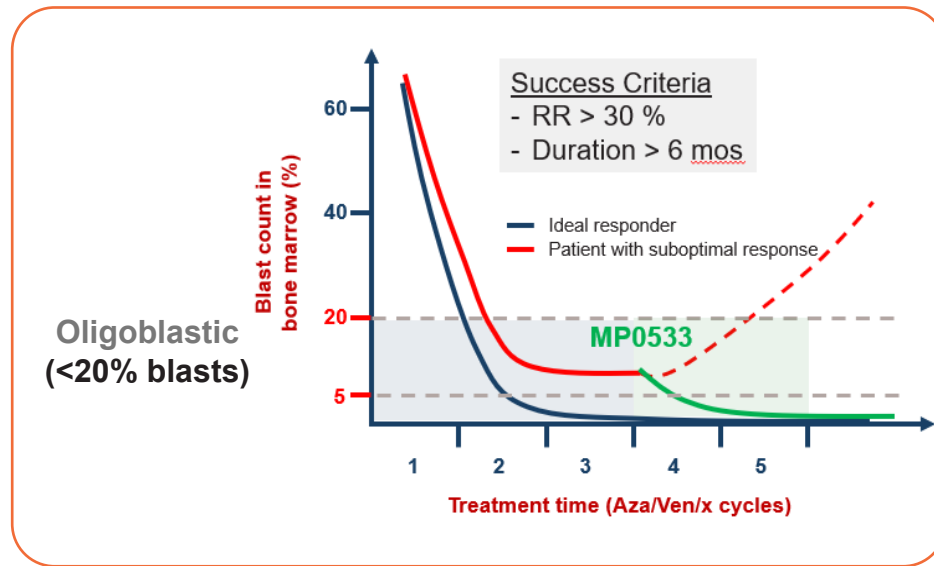
Further Densification (DR 9*)

1 responder (of 7 patients), manageable safety



Planned Segments for MP0533 Development – IIT

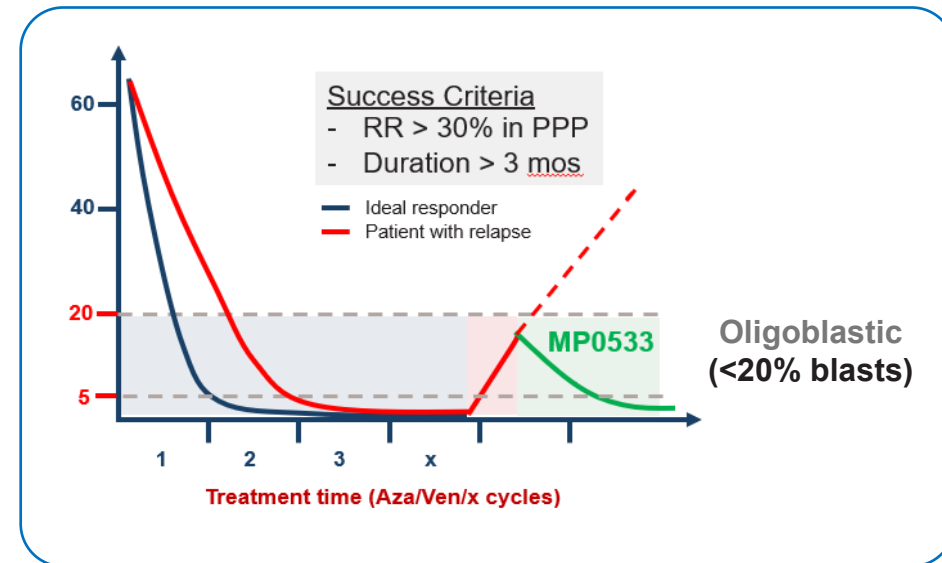
Front-line AML – suboptimal response



“Maximize market value (of combo)”

- Company-sponsored
- ADAPT, HOVON

R/R AML – relapse



“Fast to market”

- Company-sponsored
- INTERCEPT

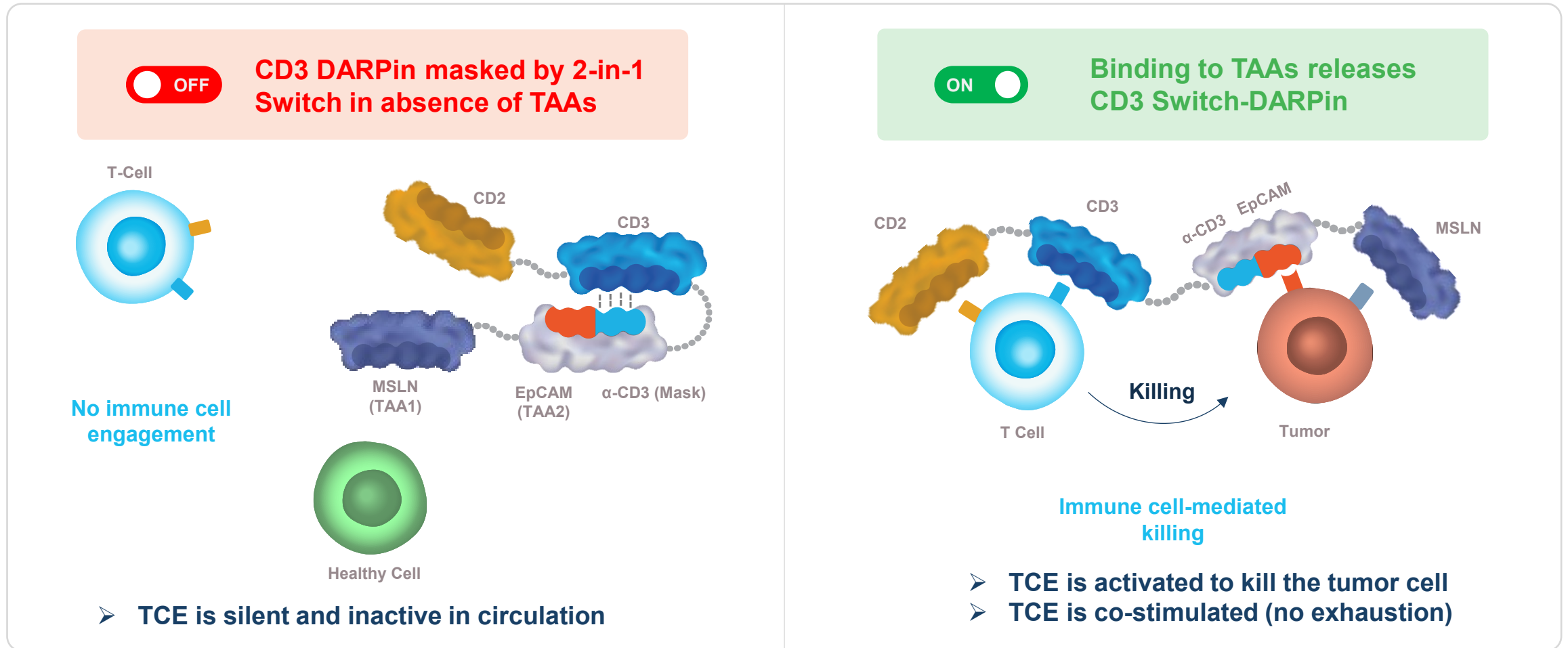


Switch-DARPin Platform

Next-generation T cell engagers

CD3 Switch-DARPin for Next-Gen TCEs with Enhanced Function

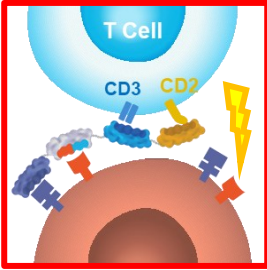
Tackling current limitations of TCEs in solid tumors



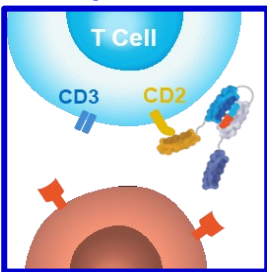
Next update on CD3 Switch TCE at AACR 2026

MSLN x EpCAM x CD2 x CD3 Switch-DARPin Enables “AND-Gate” for Preferential Killing of Double vs Single TAA Expressing Cells

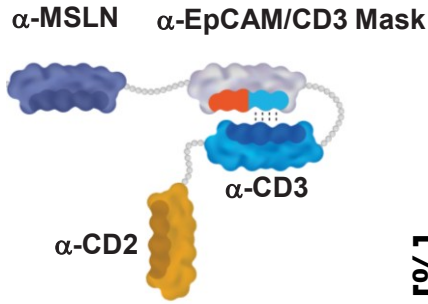
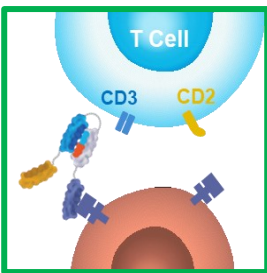
EpCAM+ MSLN+



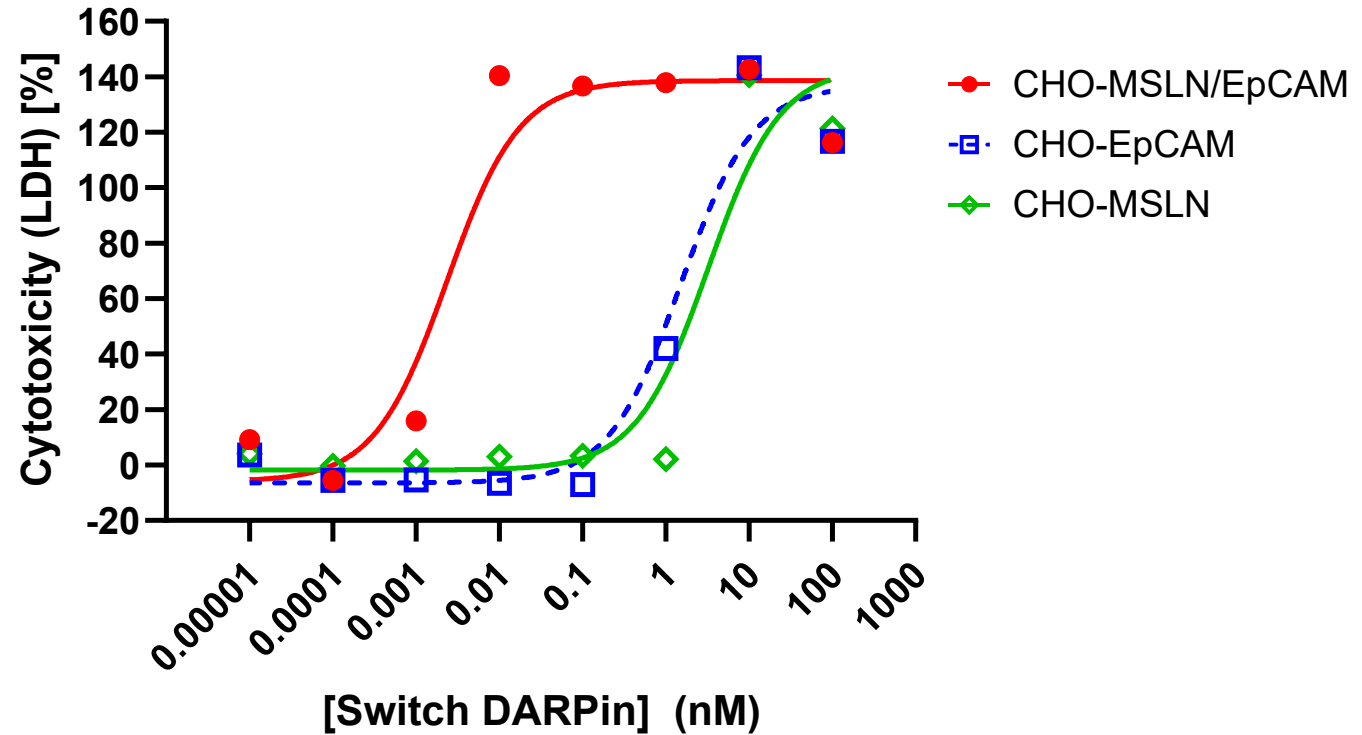
EpCAM+



MSLN+

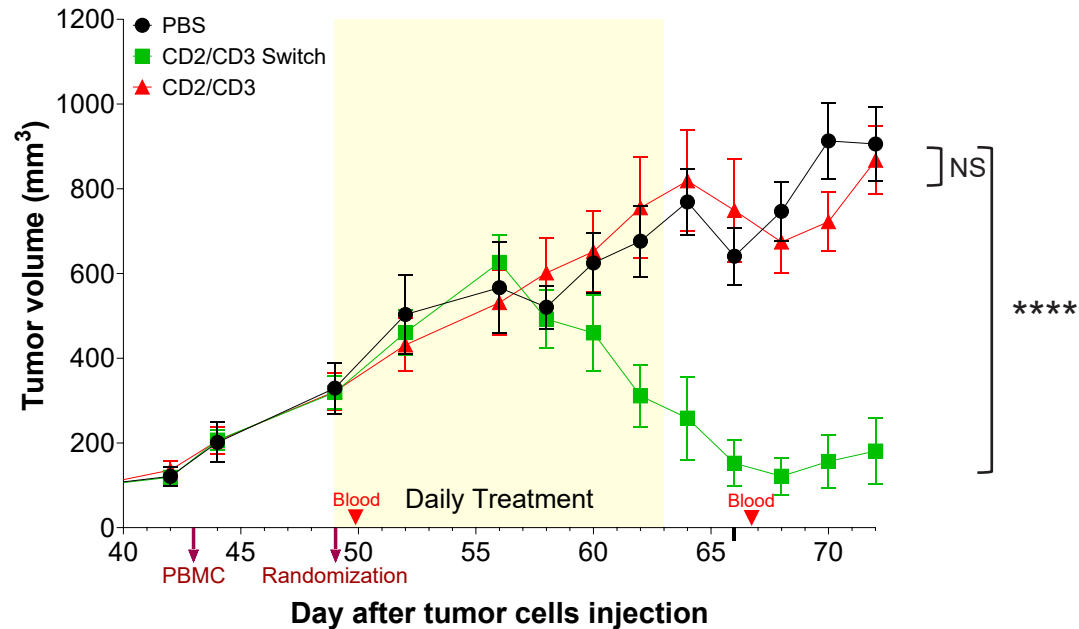


Target cell killing



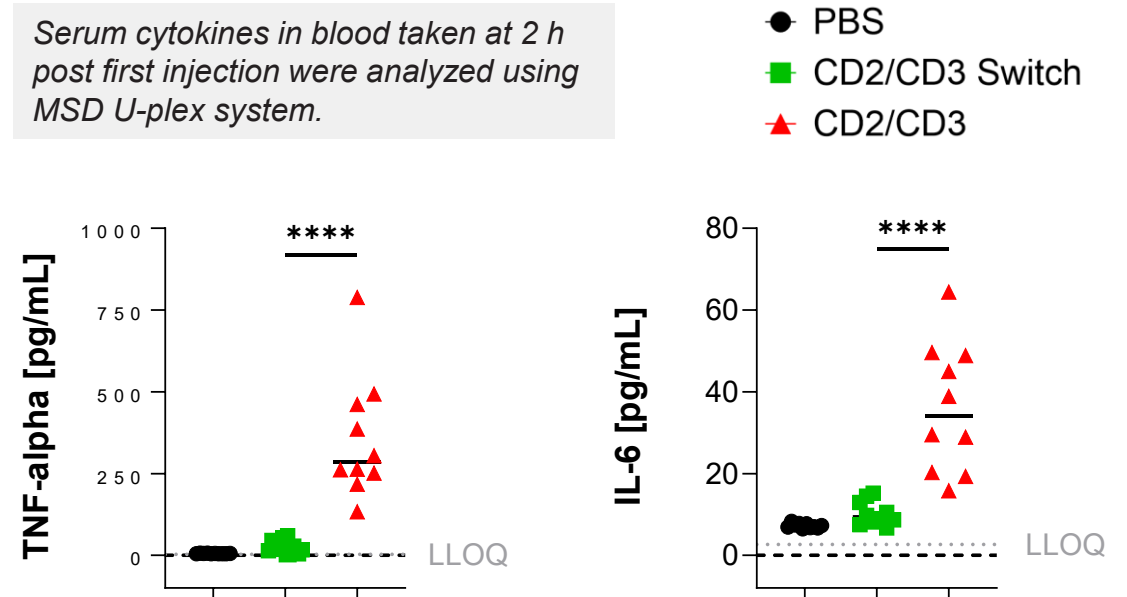
CD3 Switch-DARPin with CD2 Co-Stimulation Induces Tumor Regression

Antitumor activity in OVCAR-3 xenograft model



Safety of CD2/CD3 Switch: *in vivo* cytokine release

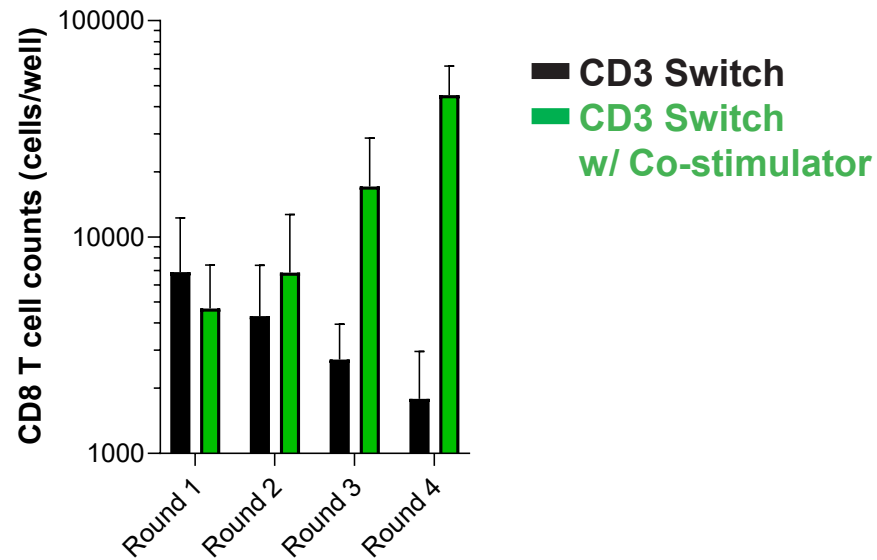
Serum cytokines in blood taken at 2 h post first injection were analyzed using MSD U-plex system.



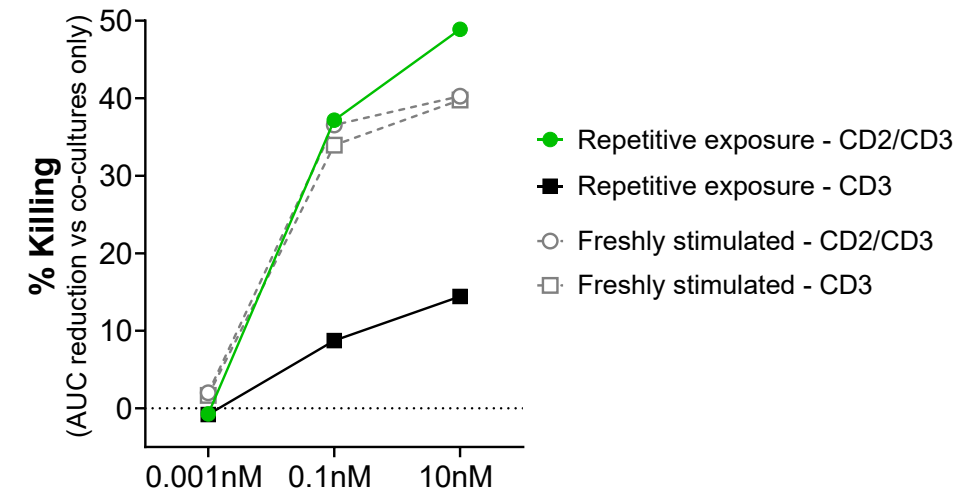
- Masking of CD3 allows the safe use of strong CD3 and co-stimulation binders in one molecule
- Also confirmed in human whole blood cytokine release assay

CD2 Co-stimulation Enables Sustained T Cell Function

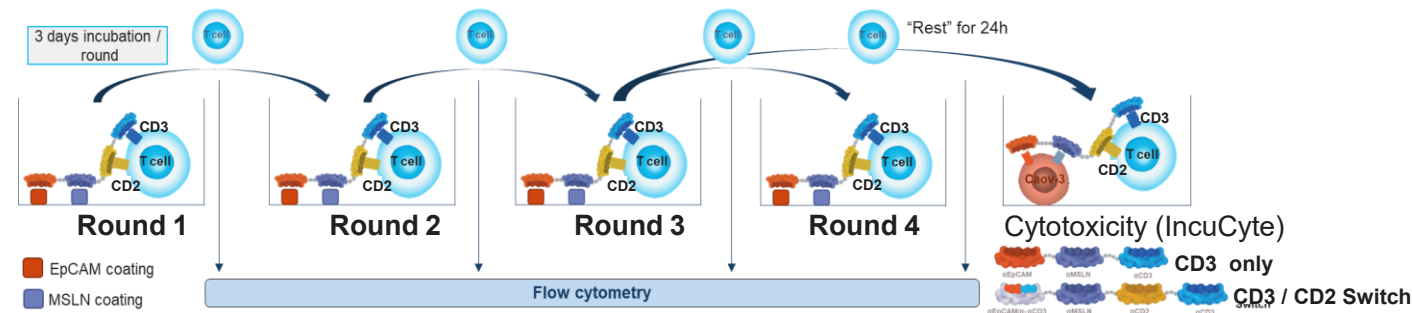
Superior T cell proliferation profile



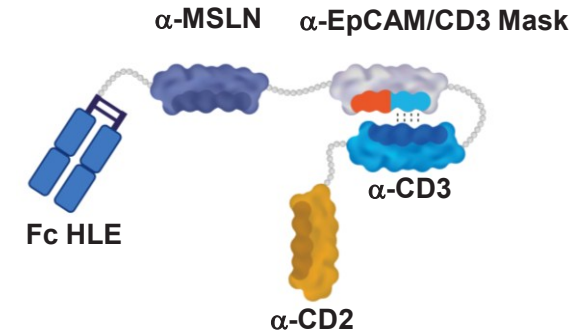
Higher cytotoxic activity



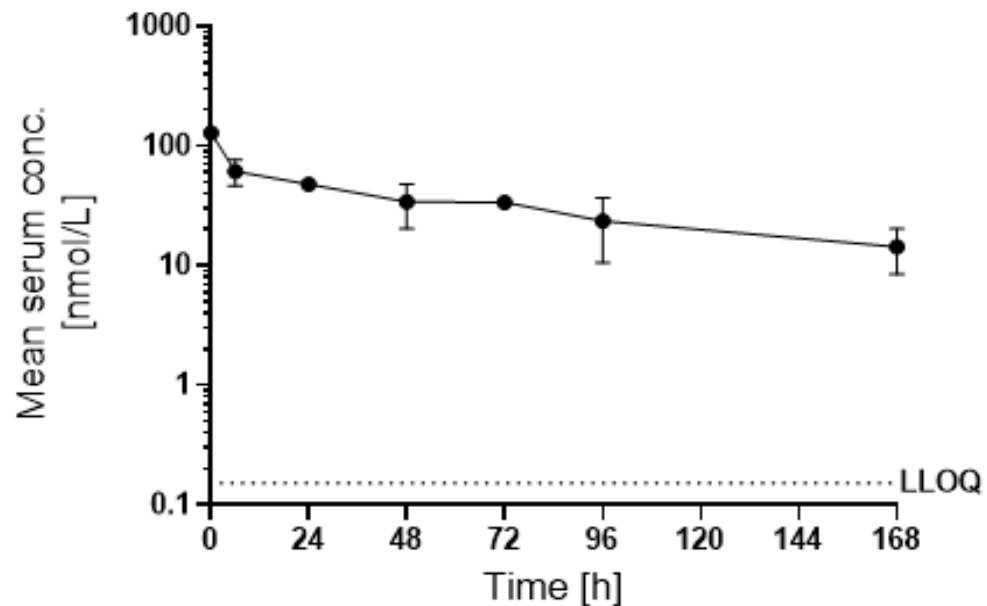
Setup of repetitive T cell stimulation assay:



Fc-Switch-DARPin Supports Q2W–Q3W Dosing Schedule in Clinic



DARPin exposure in mice (1 mg/kg)



Parameter	Fc
MW (kDa)	115
Mouse Cmax (nM)	76.5
Mouse HL (h)	~50–80h
Scaled human HL (weeks)	2–3 ⁽¹⁾

(1) Scaling based on known HL of human IgG Fc in mice, which is of 1-2 days (as experimentally measured for the Fc) vs 21 days in human