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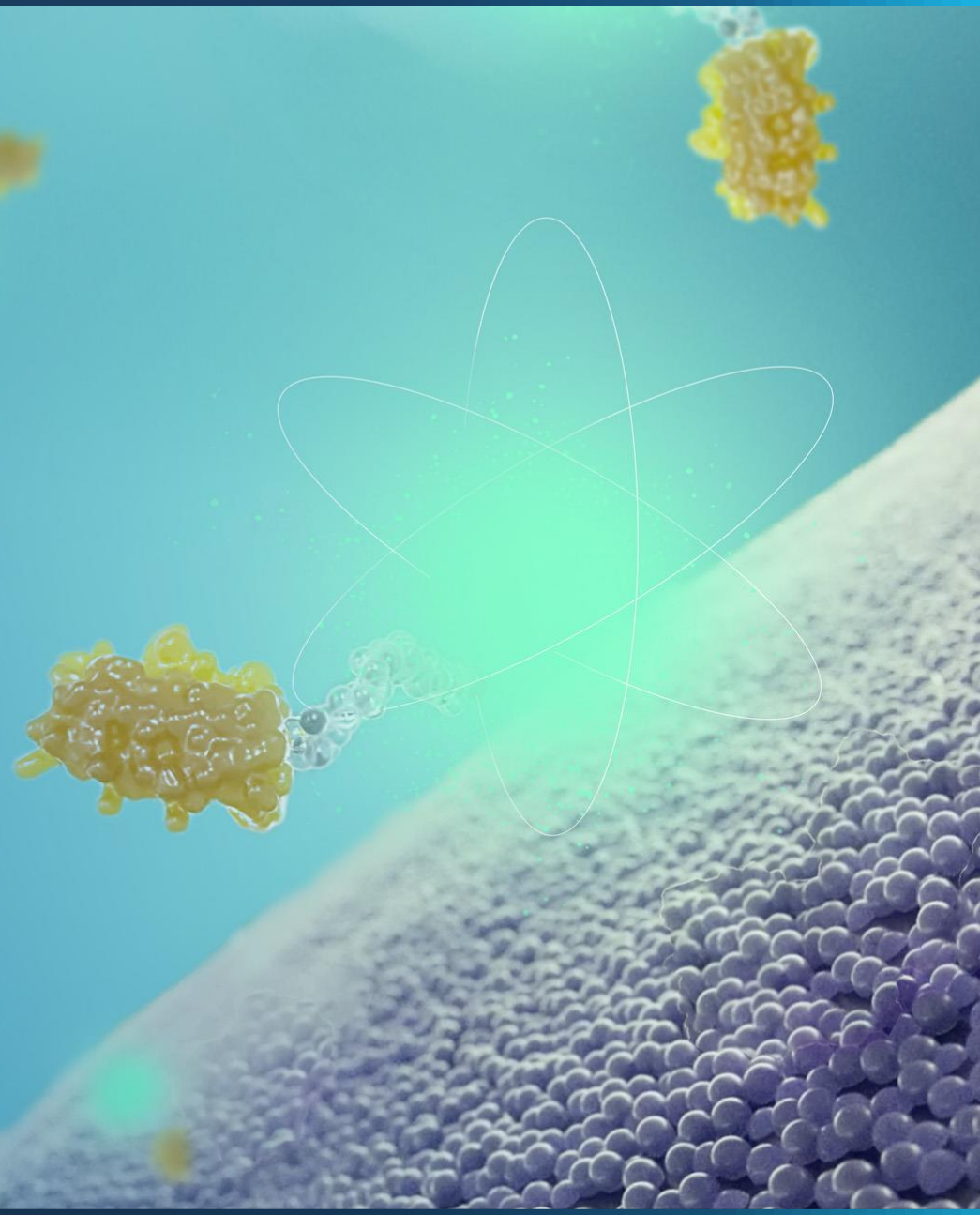
Extending the Boundaries of Targeted Cancer Therapies with Radio-DARPins and Next-Gen Immune Cell Engagers



Full-Year Earnings Call

March 7, 2025

Disclaimer

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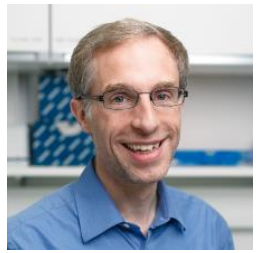
Agenda & Speakers

Welcome & Introduction	Highlights 2024 & Outlook 2025	Financial Overview	MP0712 & Radio-DARPin	MP0533 & Switch-DARPin
				
Seth Lewis SVP IR & Strategy	**Patrick Amstutz** CEO	**Robert Hendriks** SVP Finance	**Michael T Stumpp** EVP Projects	**Philippe Legenne** CMO

Corporate Highlights 2024

MP0712 & Radio-DARPin Therapy	• **MP0712** targeting **DLL3** completed **IND-enabling studies** • **Mesothelin** (MSLN) as second target in Radio-DARPin pipeline, leveraging DARPin uniqueness • **Strategic collaboration** with **Orano Med expanded to ten** ^{212}Pb programs
MP0533 T-Cell engager	• Phase 1/2a study (cohort 8 on-going) with **novel tetra-specific T-cell engager** for AML patients • **Optimized dosing** schedule in cohort 8 **shows improved response rate and depth**
Switch-DARPin	• Proof-of-mechanism for MP0621, a cKit x CD16a x CD47 Switch-DARPin for next-gen HSCT • **Switch-DARPin** platform **expanded to CD3** for logic-gated **T cell engagers** • **T-cell co-stimulating** DARPins validated (CD2 and others) for solid tumor application
MP0317	• Phase 1 data for FAP-mediated CD40 activation demonstrates **remodeling of tumor microenvironment,** favorable safety profile in patients with advanced solid tumors; combination IIT in preparation
Operations	• **Strong financial position** with CHF 149.4M in cash as of December 31, 2024 • Capital raise of $20M in October 2024 allowing **runway well into 2027**

AML, acute myeloid leukemia; DLL3, Delta-like ligand 3; FAP, fibroblast activation protein; HSCT, hematopoietic stem cell transplantation; IIT, investigator-initiated trial; IND, investigational new drug; PoC, proof-of-concept.

Pipeline

MODALITY	CANDIDATE	RESEARCH	PRE-CLINICAL	PHASE 1	PHASE 2	PHASE 3
Radio-DARPin Therapy (RDT) oranomed	**MP0712 (DLL3)**	**SCLC & NETs** *^{212}Pb - DLL3*		*Co-development**		
	RDT x MSLN	**Ovarian** *^{212}Pb - MSLN*	*Co-development**			
	Undisclosed Programs	**Solid Tumors**	*Up to 8 programs**			
Next-Gen Immune Cell Engagers	**MP0533**	**r/r AML and AML/MDS** *CD33 x CD123 x CD70 x CD3*				
	Switch-DARPin T Cell Engager	*CD3 x costim x TAAs*				
	MP0621 (Switch-DARPin)	**HSCT** *cKit x CD16a x CD47*				
	MP0317	**Advanced Solid Tumors** *FAP x CD40*				

*The co-development agreement with Orano Med includes up to 10 RDT programs, including MP0712.

AML, acute myeloid leukemia; DLL3, Delta-like ligand 3; HSCT, hematopoietic stem cell transplant; MDS, myelodysplastic syndrome; MSLN, mesothelin; NET, neuroendocrine tumor; r/r, relapsed/refractory; SCLC, small cell lung cancer; TAA, tumor-associated antigen.

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Financial Overview

Key Figures FY2024

(CHF million, except per share and FTE data)	***FY 2024***	*FY 2023*	***change***
Revenues	**5.0**	**7.0**	**(2.0)**
Total operating expenses[1]	**(66.2)**	**(68.1)**	**1.9**
Operating result	**(61.2)**	**(61.1)**	**(0.1)**
Net financial result	**7.2**	**(0.9)**	**8.1**
Net result	**(54.0)**	**(62.0)**	**8.0**
Basic net result per share (in CHF)	**(1.59)**	**(1.89)**	**0.30**
Net cash from / (used in) operations	**(59.2)**	**(59.0)**	**(0.2)**
Cash balance (incl. s.t. deposits) as of Dec 31 [2]	**149.4**	**186.9**	**(37.5)**
Number of FTE's as of Dec 31	**158.5**	**167.5**	**(9.0)**

[1] Thereof non-cash costs of CHF 5.8 m in FY2024 and CHF 8.1 m in FY2023
[2] Including CHF 85.6m short-term time deposits (2023: 119.6m)
Note: Rounding differences may occur

Financial Guidance* for 2025

- Total operating expenses of CHF 55-65 million,
  of which around CHF 7 million non-cash effective costs

- ~**CHF 149 million** cash & cash equivalents (incl. short-term time deposits)
  ensure comfortable **funding well into 2027**
  (excl. any potential payments from R&D partnerships)

* Guidance subject to progress and changes of pipeline

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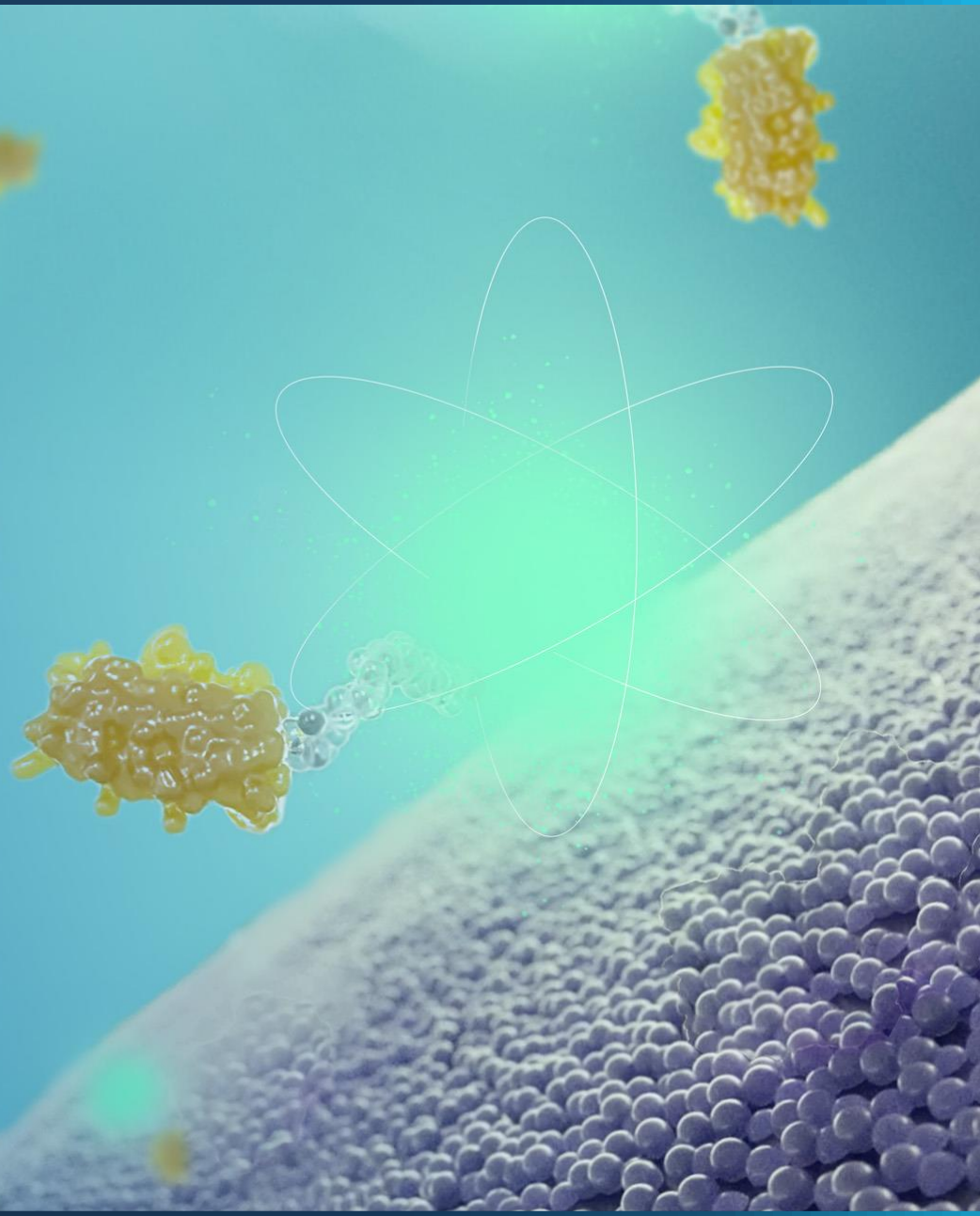
Radio-DARPin Therapy & MP0712

Custom-engineered to create vectors ideal for radiopharmaceuticals



Radio-DARPins as Versatile Therapeutic Candidates

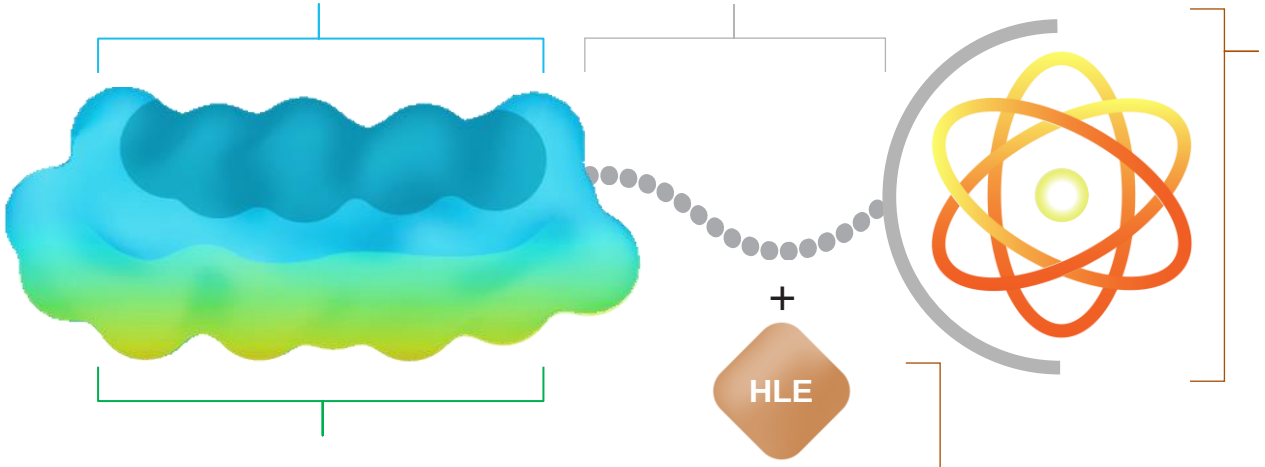
Combining versatile DARPin features with the power of ^{212}Pb for next-gen Targeted Alpha Therapy

DARPin: IDEAL VECTOR FOR RADIOPHARMACEUTICALS

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

LINKER & CHELATOR

- Established DOTAM



^{212}Pb: ALPHA-EMITTING THERAPEUTIC ISOTOPE

- Proven clinical efficacy
- Fast & high energy deposition
- Safe profile
- Ideal waste management

SURFACE ENGINEERING

- High stability
- Reduce kidney accumulation

HALF-LIFE EXTENDER

- Half-life tuning
- Promote tumor uptake

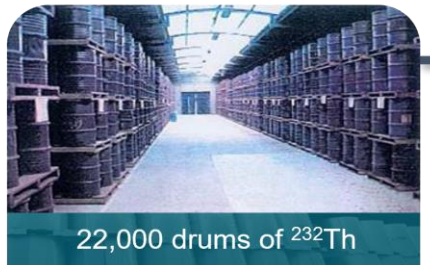
Orano Med – Pioneer of Targeted Alpha Therapy

Targeted Alpha Therapy with ^{212}Pb:

- **Alpha therapy**:
  - **High cytotoxicity**: DNA double-strand break, high energy deposition, no need for receptor internalization
  - **Targeted effect**: short range of action with potential to target microlesions, less impact on healthy tissues
- **Lead-212 (^{212}Pb)**:
  - **Short-half life** (~11h): out-patient administration, easy waste management, high-dose rate, flexible dosing
  - **Clean decay** with single alpha emission and effective chelating agent, limiting circulation of free daughter isotopes

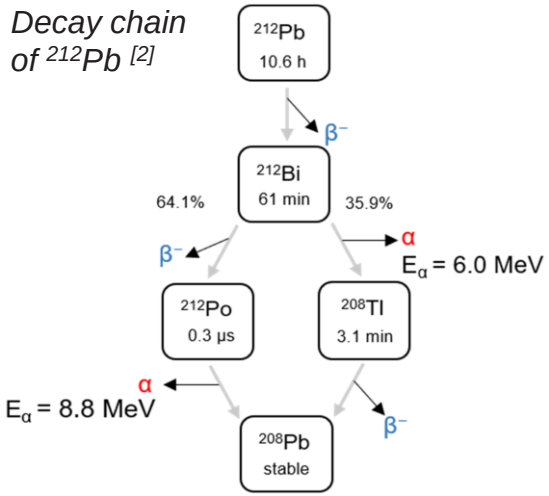
Orano Med as Pioneer of ^{212}Pb Targeted Alpha Therapy:

- Unique, independent **supply of ^{212}Pb** as alpha emitting therapeutic isotope
- **Large scale GMP manufacturing** capabilities
- Fully integrated research and preclinical development platform
- **Clinical capabilities** demonstrated with ^{212}Pb and lead program AlphaMedix™, outlicensed to Sanofi in Sept 2024, in Phase 2
- Strong collaboration partner with MP since early 2023



Lead-212 is obtained **chemically** by **successive extractions and purifications** of the descendants of thorium-232

Decay chain of ^{212}Pb [2]



1. Zimmermann, *J Nucl Med*, 2023.
2. Li et al., *Materials* 2021.

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	**MP0712** (^{212}Pb x DLL3)	4 Radio-DARPin programs 50:50 cost and share split
2	^{212}Pb x MSLN	
3		
4		
5		2 MP-owned programs with opt-in option for OM for 50:50 cost:share split
6		
7		4 MP-owned programs
8		
9		
10		

MP0712, the first ^{212}Pb-DLL3 Targeted Radiotherapeutic for SCLC

SCLC: critical unmet need, limited treatment options

- Median progression free survival (mPFS) ~3 months[1,2]
- 5y overall survival (OS) ~3%[1,2]

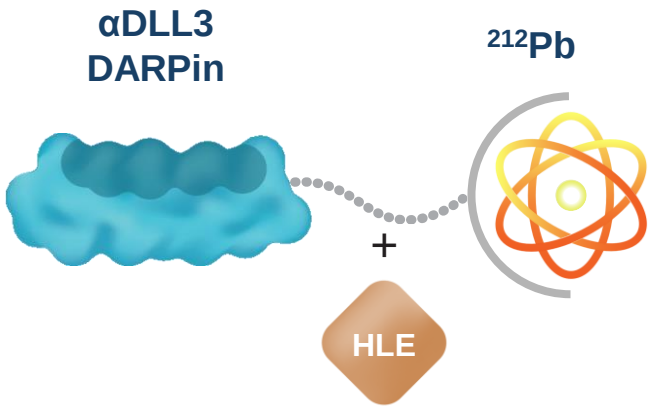
DLL3: a validated target for SCLC

- Expressed in >85% of SCLC patients[3] and in neuroendocrine cancers
- No expression in healthy tissues
- Tarlatamab[4], approved DLL3 targeting drug (T cell engager)
  - ORR ~40%, DOR 9.7 months, PFS 4.3 months

MP0712: targeted delivery of alpha radiation with ^{212}Pb

- DLL3 DARPin optimized for selective delivery of payload to tumor
- ^{212}Pb payload: high energy alpha emissions in short time frame, works with low target copy number (no need for internalization)
- Potential for combinations with immunotherapy

MP0712 product composition

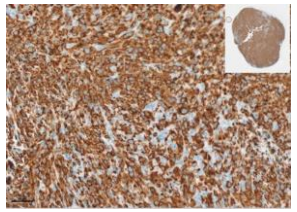


1.Treatment of refractory and relapsed small cell lung cancer, UpToDate; 2. SEER;
3. Rojo et al., Lung Cancer 2020; 4. Phase 2 DeLLphi-301 study (NCT05060016).
DOR, duration of response; HLE, half-life extension; ORR, overall response rate; SCLC, small cell lung cancer.

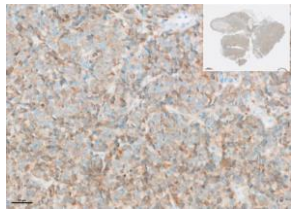
MP0712: Potent Efficacy at Clinically-Relevant Dose

DLL3 expression & distribution by IHC

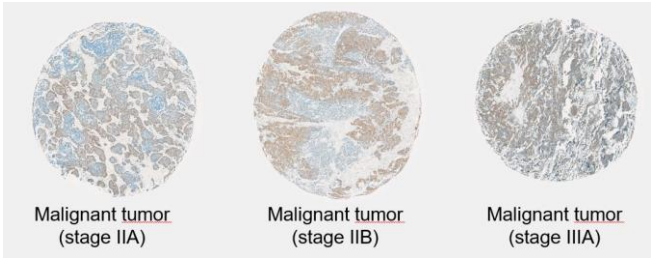
hDLL3-MC38 tumors



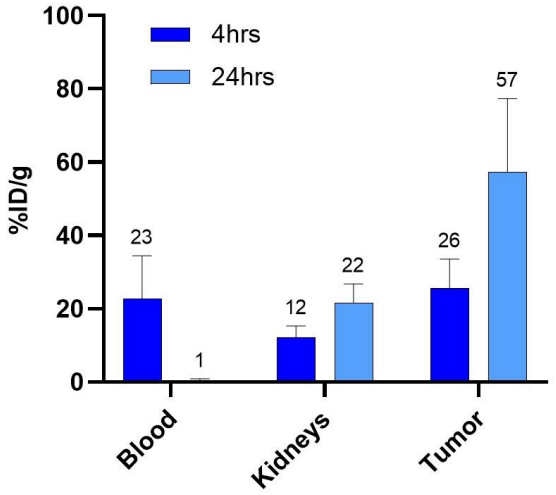
NCI-H82 tumors



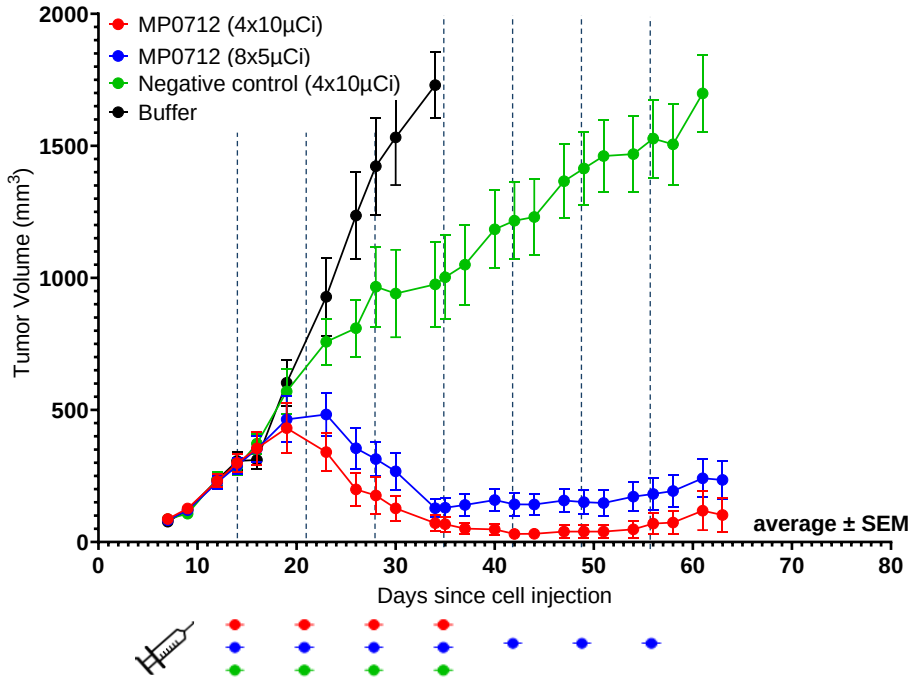
Human SCLC tumors



*Mice xenografted **i.v.** with*
NCI-H82 tumor cells



*R2G2 mice xenografted **s.c.** with*
NCI-H82



- **MP0712 reached T:K ratios > 2 in mouse model matching clinically relevant DLL3 expression levels**
- **MP0712 induces complete and durable tumor regression in NCI-H82 tumor model at 10µCi injected every week**

Steiner et al, TRP 2024 (oral presentation)
Croset et al, EANM 2024 (oral presentation)
Lizak et al, SNMMI 2024 (oral presentation)

Efficacy study in NCI-H82 s.c. tumor model / MP0712 and negative control injected 4 x 10µCi at 0.01mg/kg or 8 x 5µCi at 0.01mg/kg every 1; 10 µCi = 370 kBq
NCI-H82 i.v. mouse model:
^{212}Pb-DOTAM-DARPin - single injection - dose : 10 µCi (0.01 mg/kg)

Outline of MP0712 Clinical Development Strategy

- Patients: Focus on Small Cell Lung Cancer (SCLC), secondly on Neuro Endocrine Prostrate (NEPC)
- Biodistribution and dosimetry Phase 0 and Phase 1 studies to start in H2 2025, initial clinical data by YE

IMAGING & DOSIMETRY

Phase 0 – Imaging of **MP0712 with ^{203}Pb** (biodistribution/dosimetry)
Main objective: Imaging and Full Dosimetry to support dose strategy for ^{212}Pb
N = 5–10 patients

Purpose:
➔ Build confidence to reach relevant therapeutic level in tumor lesions

THERAPY

Phase 1/2a study (2 parts: part 1= phase 1; part 2=phase 2a)
Part 1: ^{212}Pb Dose Escalation, Main objective: Safety, RP2D; *N = 15–20 patients*
Part 2 – Dose Expansion and PoC – SCLC+NEC; Main objective: Efficacy signals, confirm RP2D (n=30)

Registration study
2L+ SCLC patients

Phase 2s
- 1–2L combination with IO SCLC
- PoC in NEPC patients

RP2D, recommended phase 2 dose; YE, year-end.

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

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

Ovarian Cancer (OC): high medical need and marginal progress

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

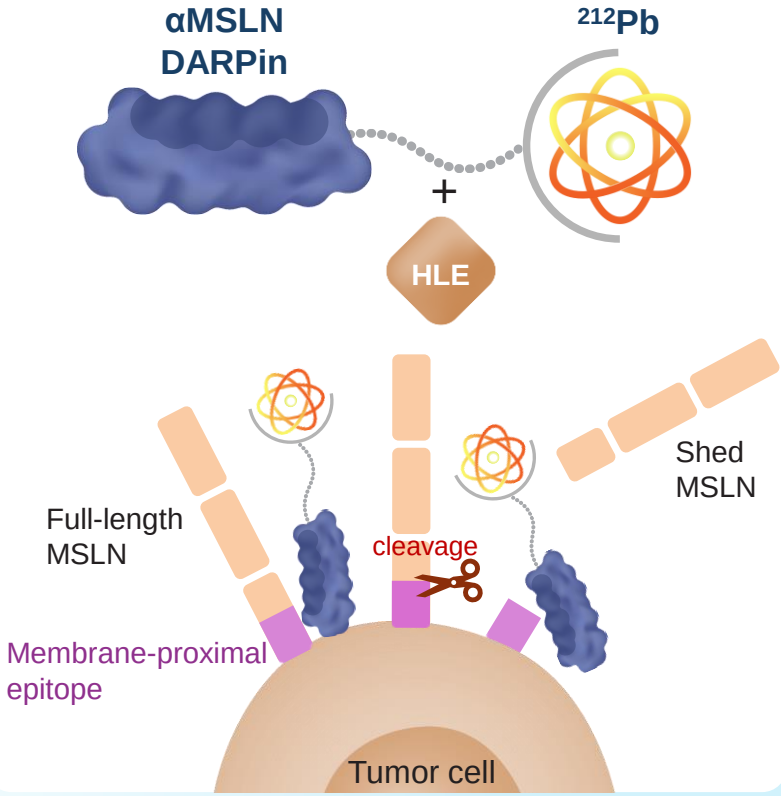
Mesothelin (MSLN): a promising target for OC as 1st indication

- 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

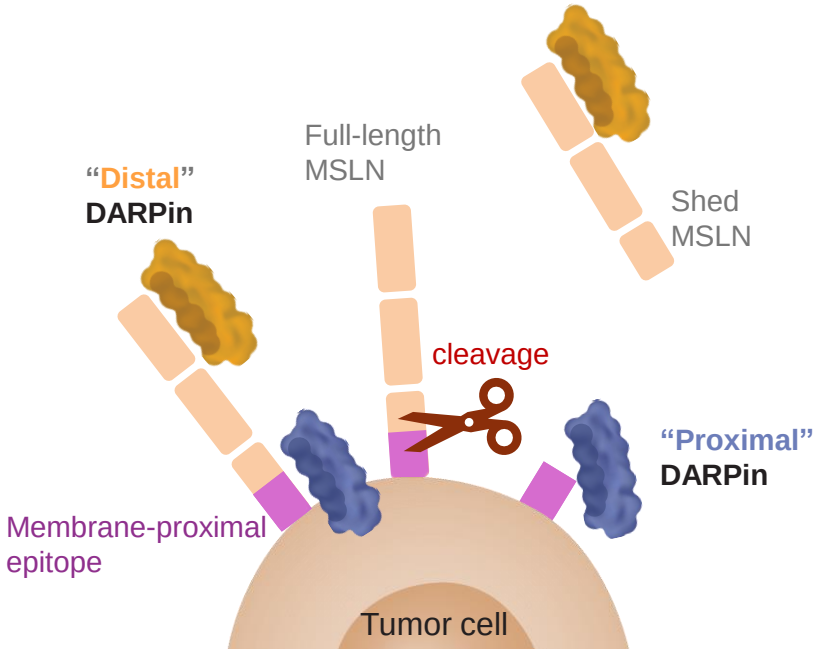
- MSLN DARPin targets **membrane-proximal epitope** (and not shed MSLN)
- ^{212}Pb payload: high energy alpha emissions in short time frame
- Potential for combinations with immunotherapy (incl. next-gen TCEs)

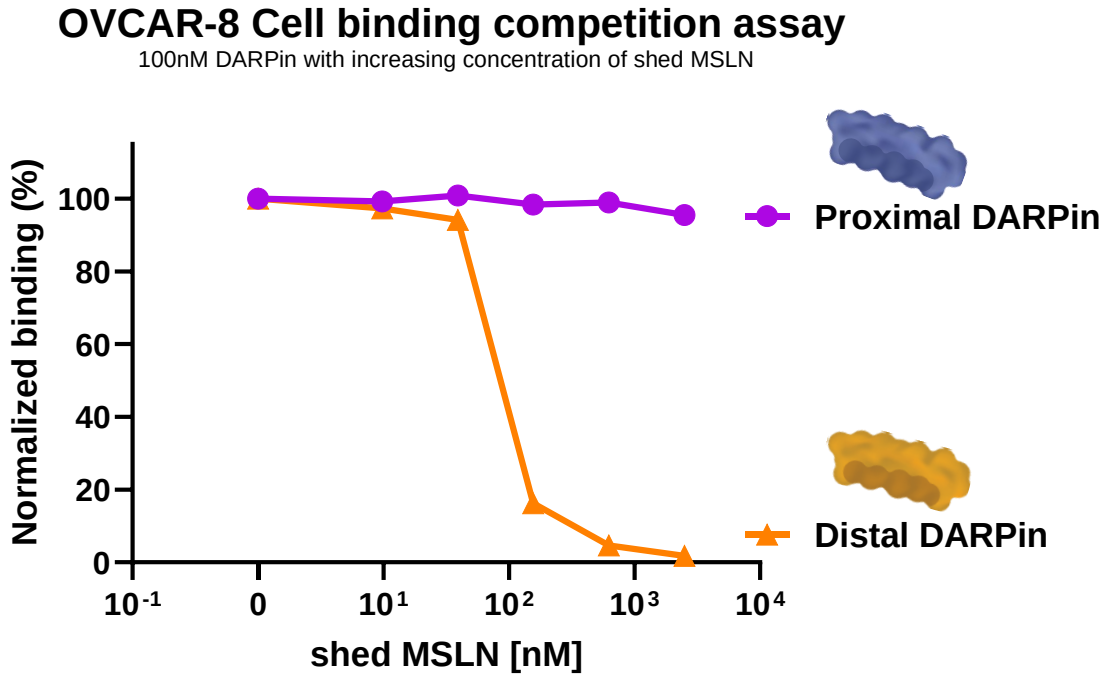
Product composition



1. Awuah et al. 2016; 2..Zhang et al. 2011; 3.Smith et al. 2024 (ASCO poster); 4.Pastan et al, 2024.

DARPin activity is maintained despite shed MSLN





Binding maintained in presence of shed MSLN

Binding inhibited in presence of shed MSLN

Preclinical update on MSLN at AACR 2025

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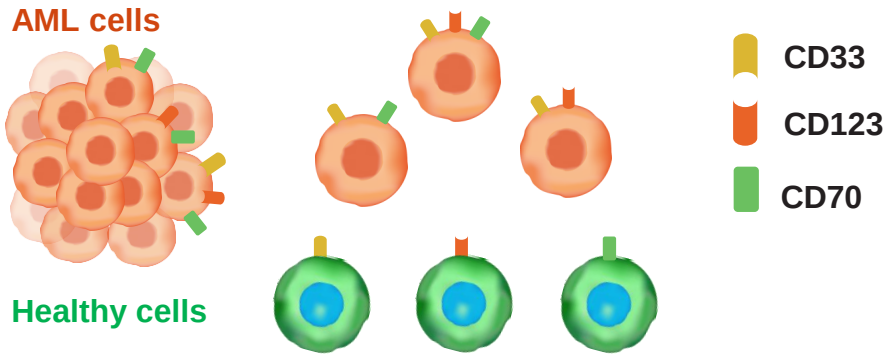
MP0533

Tetra-specific T-cell Engager for AML

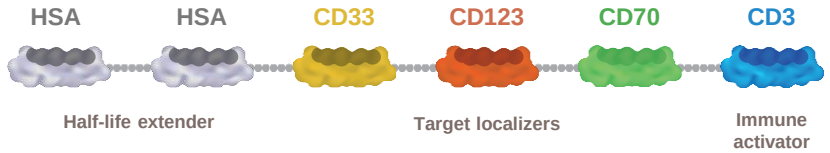
MP0533 Enables Avidity-Driven Selective Killing of AML Cells

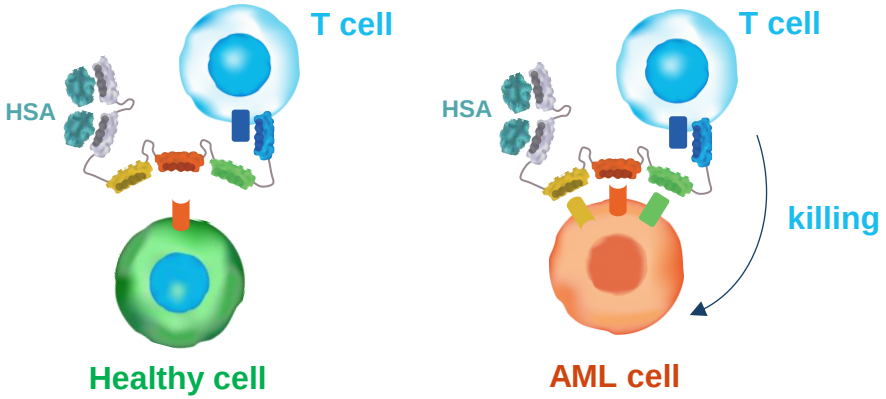
AML-associated antigens are also expressed on healthy cells



- **AML** bears a **high risk of relapse** due to **persistent LSCs**
- **AML cell population is heterogeneous** → differentiation from healthy cells (e.g., HSCs) feasible through their **co-expression of CD33, CD123, CD70**

MP0533: avidity-driven selectivity and T cell-mediated killing





- MP0533 designed to induce **T cell-mediated killing** preferentially when **2 or 3 AML-associated antigens** are co-expressed
- Potential **to kill all AML cells (blasts and LSCs)** despite heterogeneity, **ensuring long-term disease control**

AML, acute myeloid leukemia; HSC, hematopoietic stem cell; HSA, human serum albumin; LSC, leukemic stem cells.

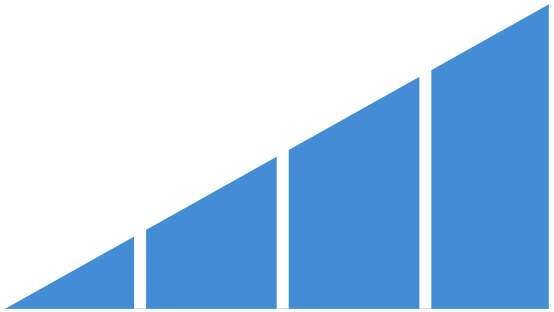
MP0533 Phase 1/2a Study in Patients with R/R AML/MDS

Protocol amendment to optimize MP0533 exposure

Initial Protocol

Dose Escalation (DR 1–7)

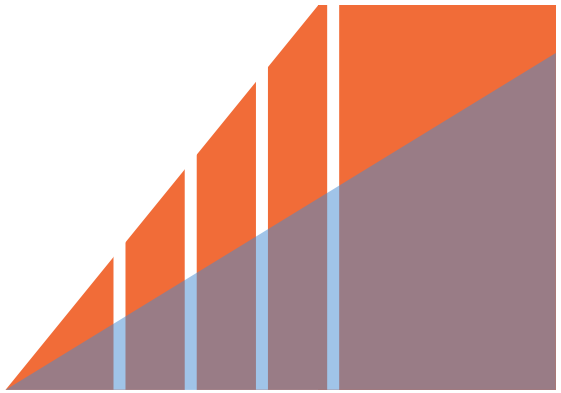
- Limited clinical activity
- Target-mediated drug disposition (TMDD) = **low exposure**
- Loss of exposure (LoE) in some patients (ADA)



Amended Dosing Scheme

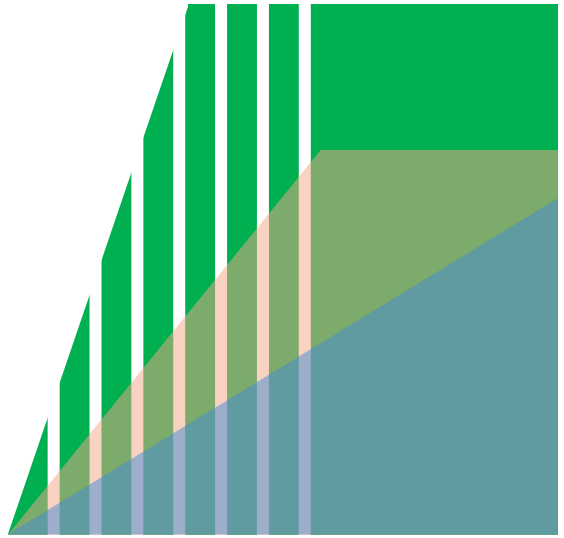
Intermediate densification (DR 8)

- **Additional Day 12 dose** allows **steeper & faster dose escalation (step-up-dosing),** addressing TMDD



Further dose densification (DR 9–10)

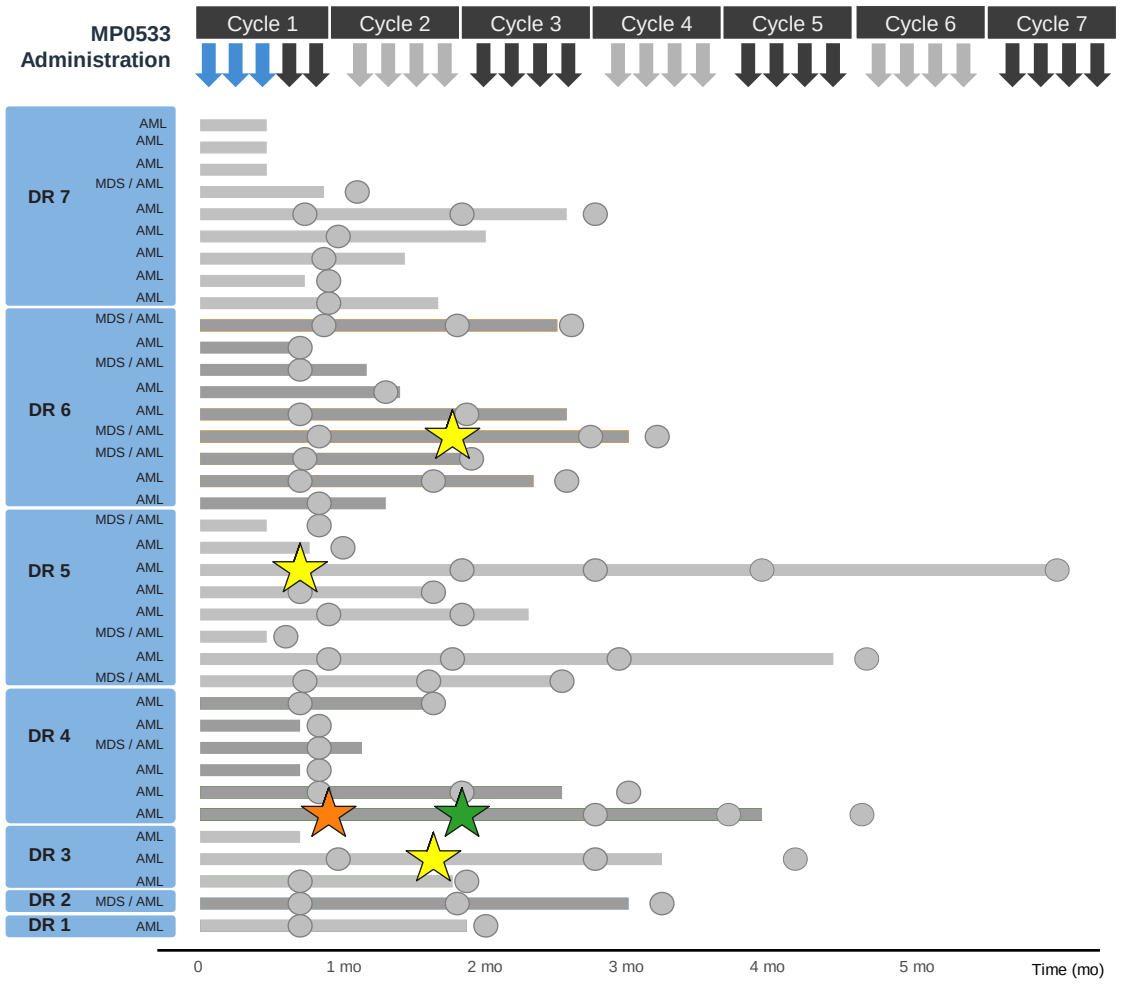
- **High dose frequency for 1st cycle**
- Premedication for **LoE mitigation**



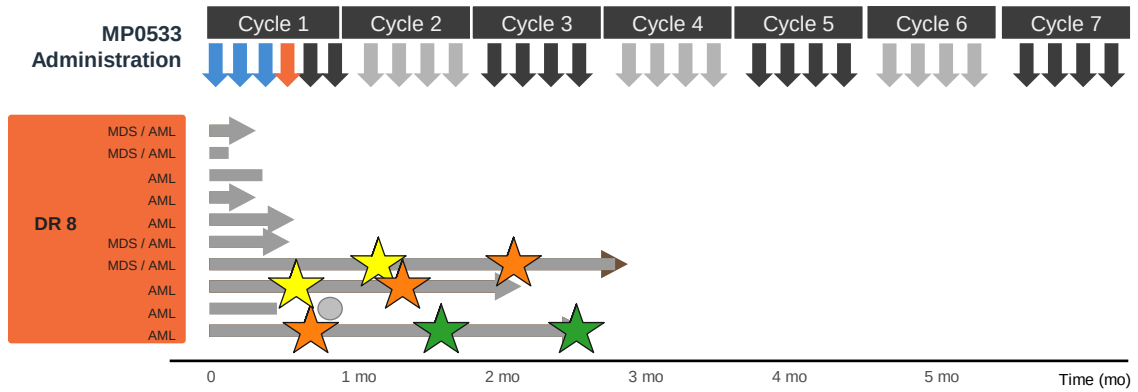
ADA, anti-drug antibody; DR, dose regimen.

MP0533 Treatment and Clinical Response

Dose Escalation (DR 1–7)



Intermediate densification (DR 8)



DR 1–7: 4 responders reported, manageable safety

DR 8: 3 responders and manageable safety reported to-date, evaluation on-going

DR 9+ (further dose densification): update in 2025

Legend

Response (2022 ELN[1]) was assessed every 4 weeks until disease progression and results are presented as:

CR · CRi · MLFS · No ELN response

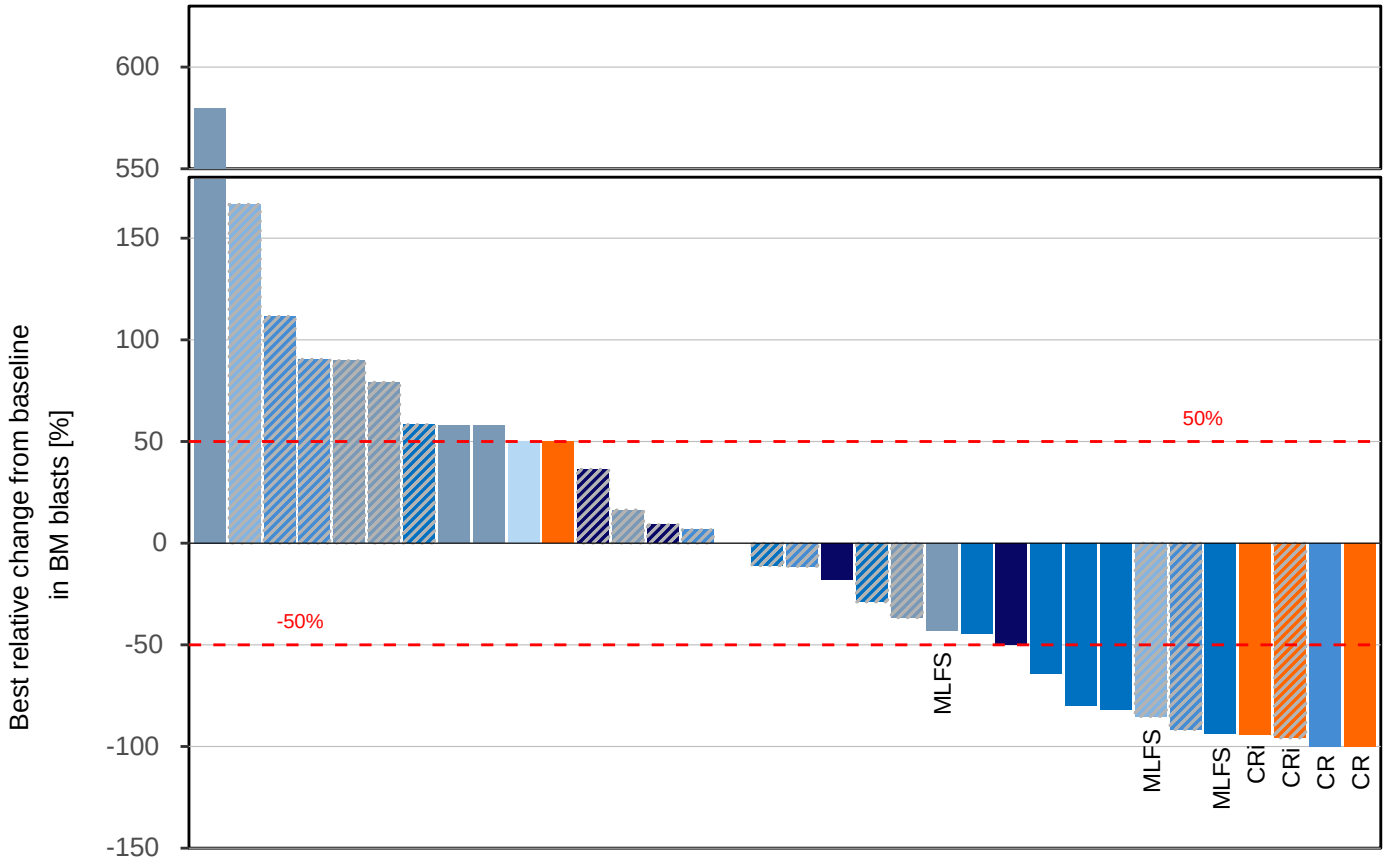
Patients with ongoing treatment at data cut-off · Patients who discontinued treatment

Arrows at the top indicate MP0533 administration at D1, D5, D8, D12 (DR 8 only), D15 and weekly thereafter

Step-up dosing at DR 1–7 · D12 dose at DR 8

Color changes in grey: start of a new 28-day cycle

Encouraging Blast Reduction Observed, Particularly in Patients with Lower Disease Burden at Baseline*



Blasts at Screening

- Low (<20% Blast)
- High (>=20% Blast)

Cohort

- Cohort 1
- Cohort 2
- Cohort 3
- Cohort 4
- Cohort 5
- Cohort 6
- Cohort 7
- Cohort 8

Best Response

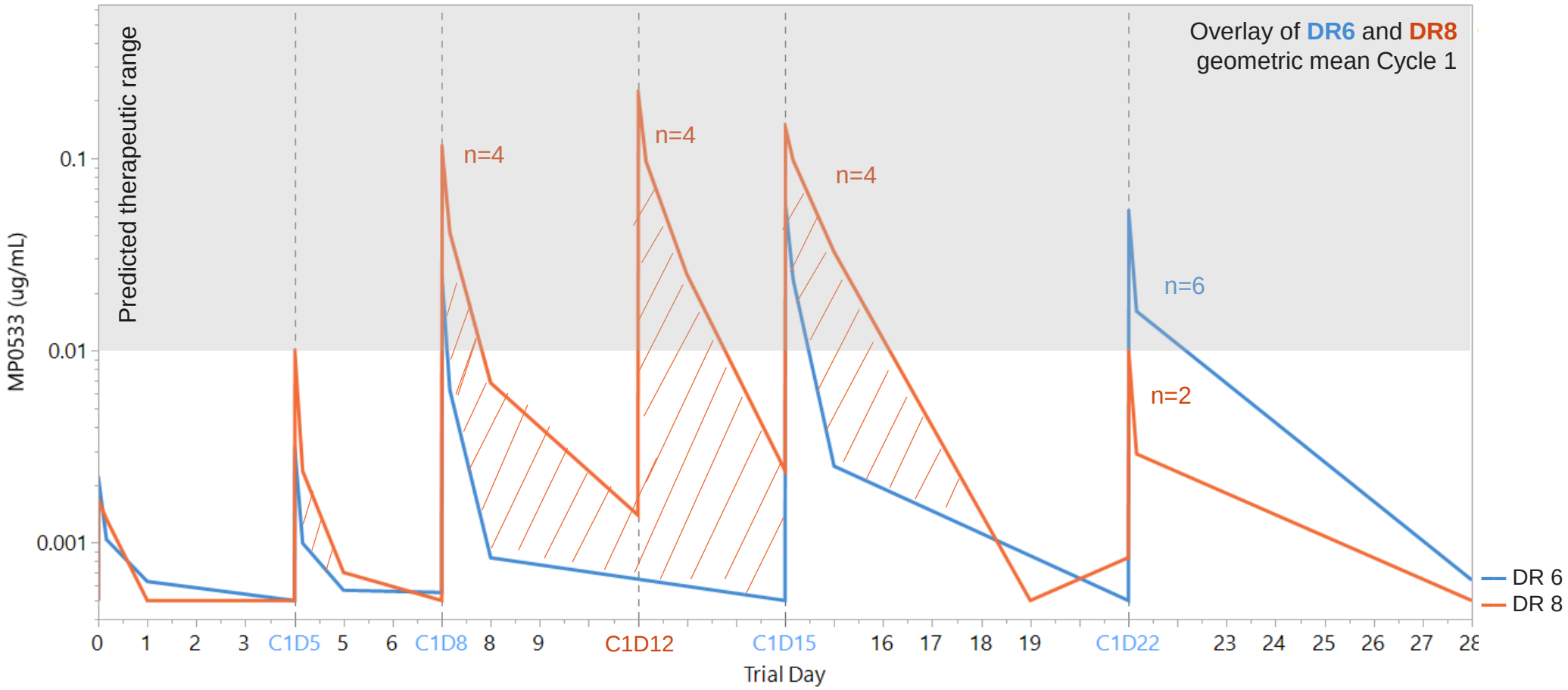
Complete Remission (CR)
CR with incomplete hematologic recovery (CRi)
Morphologic leukemia-free state (MLFS)

➢ Improved response rate and depth observed to-date in Cohort 8

Data cut-off: 16 Dec 2024; cohort 8 ongoing.

*Lower disease burden defined as patients with baseline blast <20% in bone marrow.
BM, bone marrow.

Improved MP0533 exposure at DR 8 with steeper and denser step-up dosing regimen



Data cut-off: 3 December 2024

Preliminary data as study is ongoing, subject to final data validation.

n = number of evaluable patients at data cut-off.

MP0533 Phase 1/2a Study in Patients with R/R AML/MDS

Protocol amendment to optimize MP0533 exposure

Objectives of protocol amendment:

- To improve the exposure profile of MP0533 in patients
- To increase the rate, depth and duration of clinical responses

Hypotheses:

- Dose densification may overcome target-mediated drug disposition (TMDD), contributing to increasing response rate and depth
- Premedication with B cell depleting agent may mitigate loss of exposure (LoE), contributing to increasing duration and depth of responses

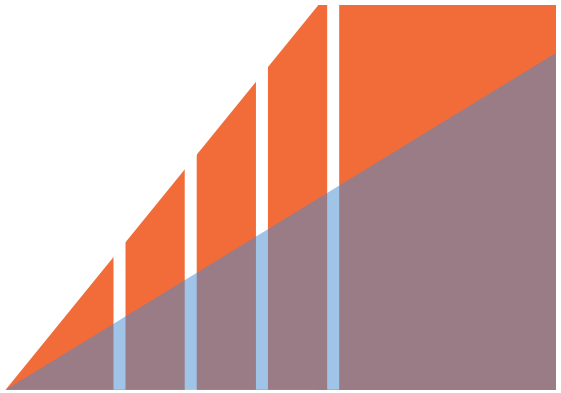
Outlook:

- Full DR 8 clinical data in H1 2025
- Initial data from DR 9 in H2 2025

Amended Dosing Scheme

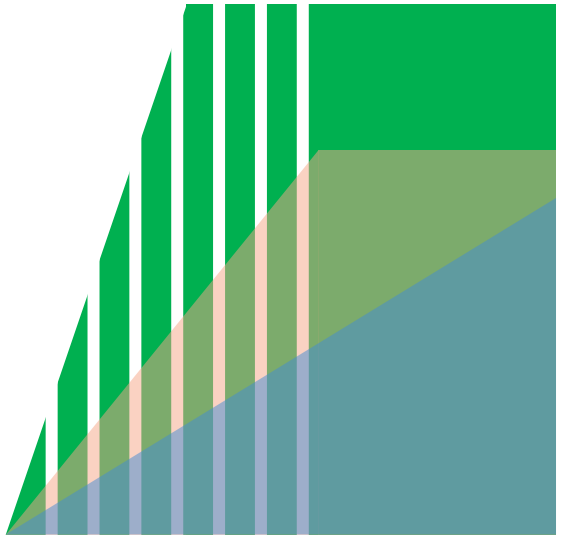
Intermediate densification (DR 8)

- **Additional Day 12 dose** allows **steeper & faster dose escalation (step-up-dosing),** addressing TMDD



Further dose densification (DR 9–10)

- **High dose frequency for 1st cycle**
- Premedication for **LoE mitigation**



DR, dose regimen.

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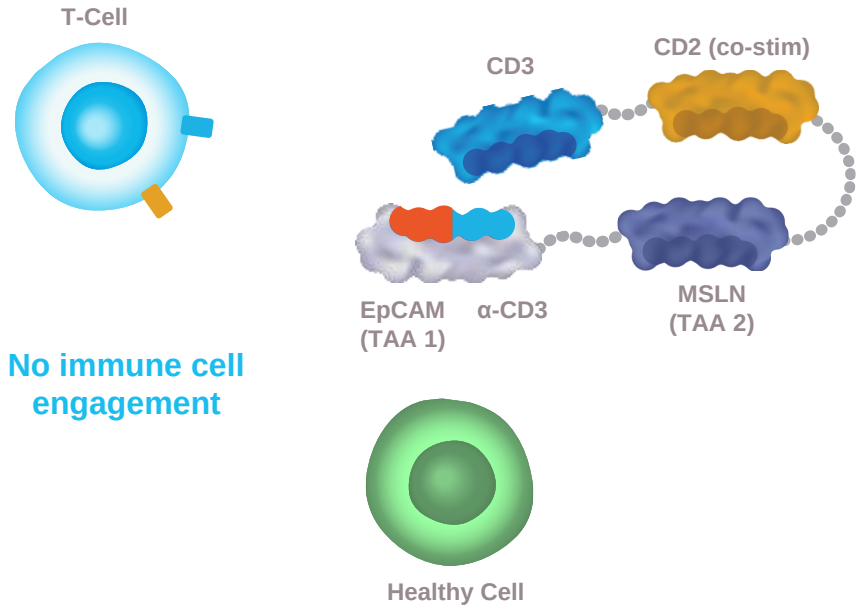
Switch-DARPin Platform

Next-generation T cell engagers

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

Tackling current limitations of TCEs in solid tumors

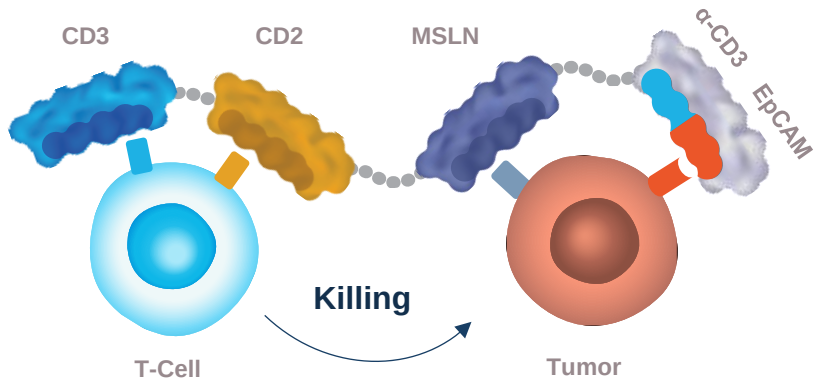
OFF **CD3 DARPin masked by 2-in-1 Switch in absence of TAAs**



No immune cell engagement

- **TCE is silent and inactive in circulation**

ON **Binding to TAAs releases CD3 Switch-DARPin**

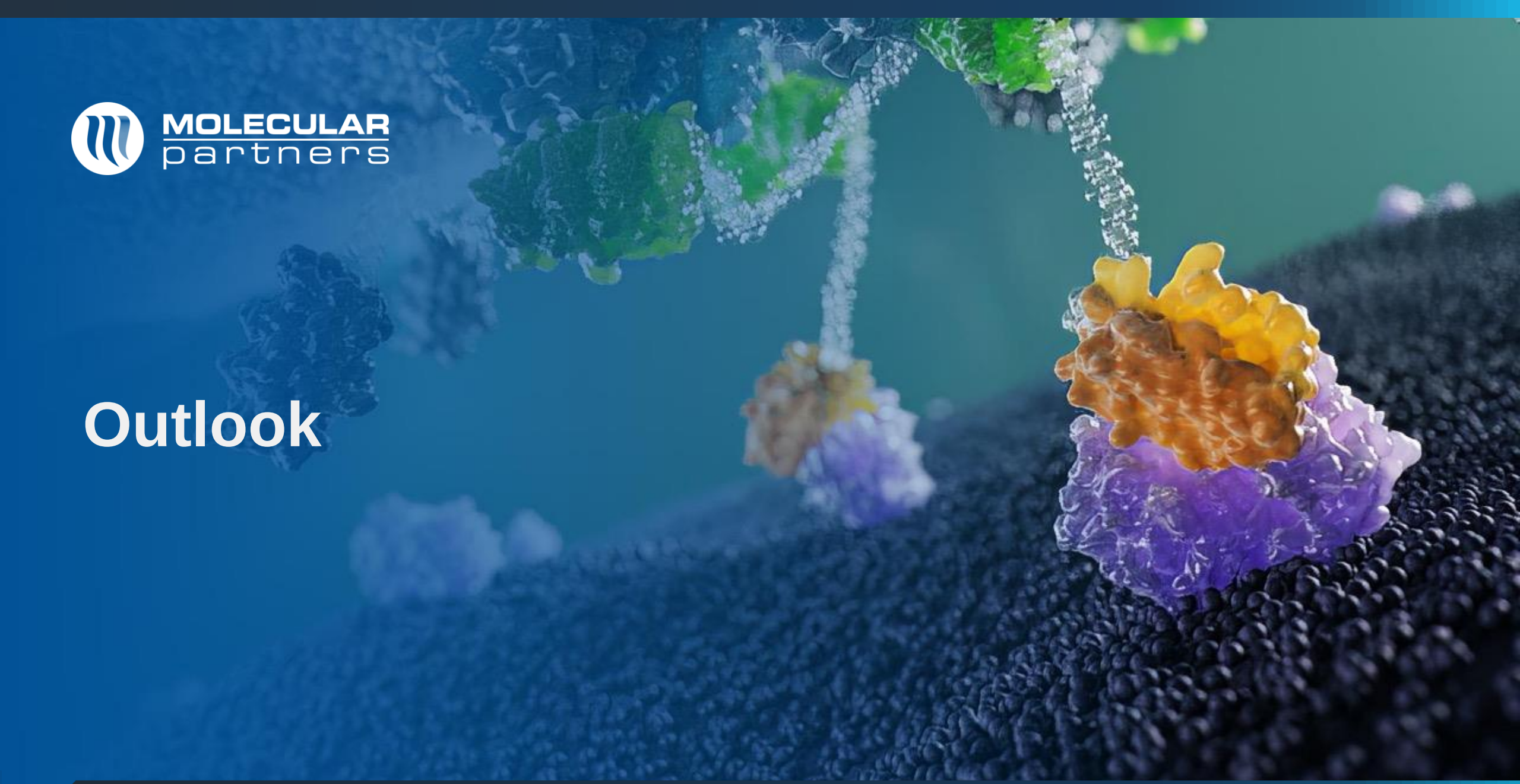


Immune cell-mediated killing

- **TCE is activated to kill the tumor cell**
- **TCE is stimulated (no exhaustion)**

Preclinical update on CD3 Switch T cell engager at AACR 2025

TAA, tumor associated antigen; TCE, T cell engager.



Outlook

2025 Outlook and Upcoming Milestones

MP0712	• First-in-Human studies to start in 2025 (Phase 0 and Phase 1) • Initial clinical data by end 2025 (imaging & dosimetry) • Initial efficacy and safety data in H1 2026
Radio-DARPin Therapy (RDT)	• MSLN preclinical update at AACR 2025, therapeutic candidate selection • Additional ^{212}Pb x RDT programs nominated, in collaboration with Orano Med
MP0533	• Comprehensive clinical data from Phase 1 cohort 8 in H1 2025 • Protocol implementation of improved dosing regime, H1 2025 • Data from additional cohorts on amended dosing scheme in H2 2025
Switch-DARPin	• Preclinical update on CD3 Switch T cell engager at AACR 2025 • Evaluation of partnering opportunities with Switch platform, including MP0621 (cKit) & T-cells

CHF ~149 million cash* (incl. short-term time deposits) ensures **funding well into 2027**

*Financials as per December 31, 2024.
IND, investigational new drug.

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Twenty Years of Pioneering
DARPin Therapeutics for Patients

Thank You

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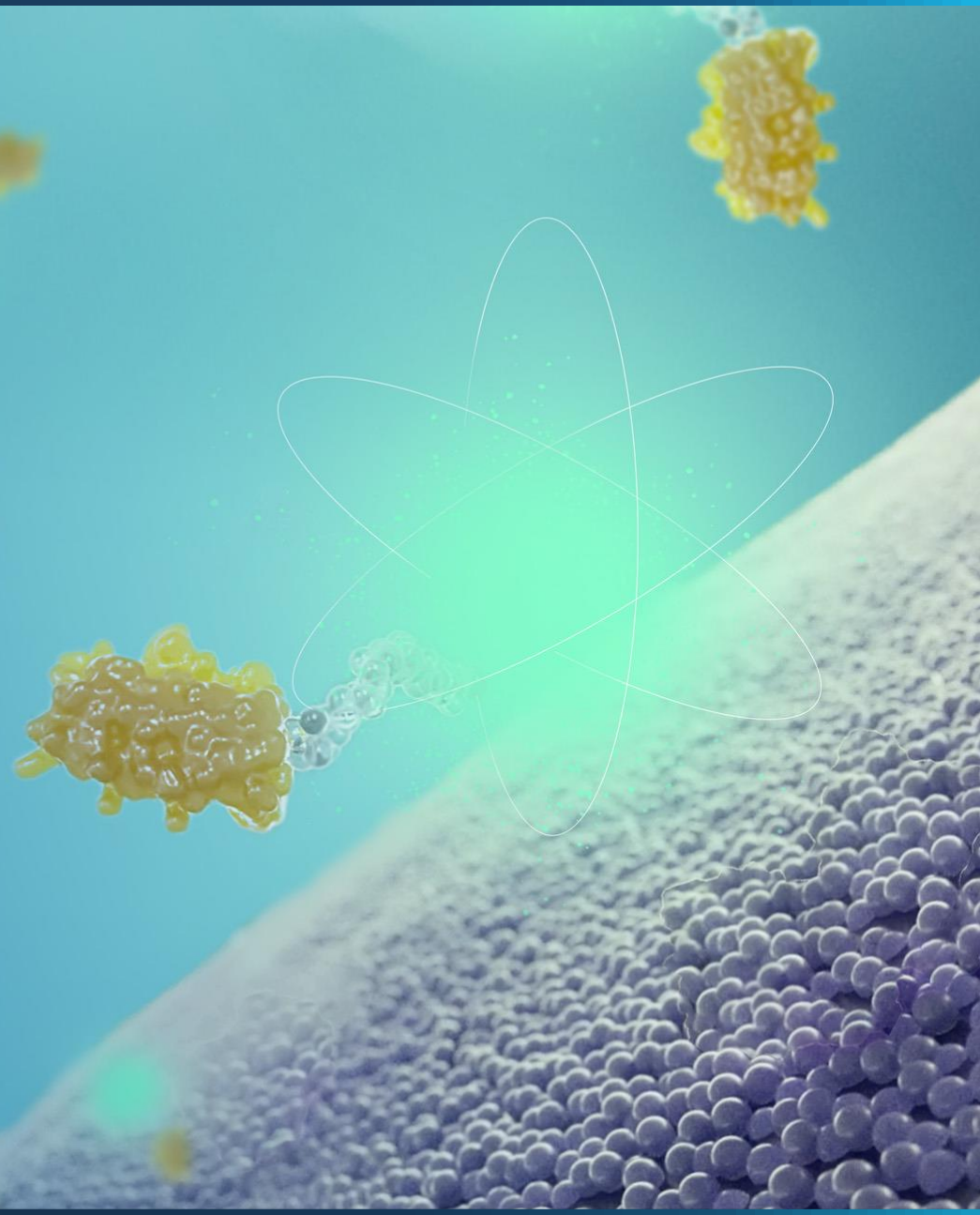
Back-up



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Financial Overview

Balance Sheet

(CHF million)	FY 2024	FY 2023	FY 2022	FY 2021	FY 2020
Non-current assets	**4.2**	5.9	7.5	8.5	9.7
Other current assets	**4.8**	5.6	5.6	31.4	4.1
Cash balance	**149.4** [1]	186.9	249.1	132.8	173.7
Shareholders' equity	**141.6**	176.4	235.2	107.3	107.2
Non-current liabilities	**6.1**	7.5	9.8	18.5	22.7
Current liabilities	**10.8**	14.4	17.3	46.9	57.7

[1] Includes CHF 85.6 million of short-term time deposits
Note: Rounding differences may occur

Income Statement

(CHF million)	FY 2024	FY 2023	FY 2022	FY 2021	FY 2020
Revenues / other income	**5.0**	7.0	189.6	9.8	9.3
R&D expenses	**(48.6)**	(48.8)	(50.7)	(55.7)	(56.1)
SG&A expenses	**(17.6)**	(19.4)	(22.3)	(17.5)	(11.6)
Operating result	**(66.2)**	(61.1)	116.6	(63.4)	(58.3)
Net financial result	**7.2**	(0.9)	1.2	(0.4)	(4.4)
Net result	**(54.0)**	(62.0)	117.8	(63.8)	(62.8)

Note: Rounding differences may occur

Cash Flow Statement

(CHF million)	FY 2024	FY 2023	FY 2022	FY 2021	FY 2020
Net cash from / (used in) operations	**(59.2)**	(59.0)	118.6	(91.0)	(29.0)
Net cash from / (used in) investing[1]	**40.5**	44.6	(101.1)	(22.2)	(21.7)
Net cash from / (used in) financing[2]	**14.4**	(1.2)	(1.6)	50.6	113.2
Exchange gain / (loss) on cash	**0.9**	(5.1)	0.3	0.7	(4.5)
Net cash increase / (decrease)	**(3.4)**	(20.6)	16.1	(61.9)	58.0
Cash balance at year end	**149.4**	186.9	249.1	132.8	173.7

[1] Includes movements in short-term time deposits
[2] For 2024 this includes the October 2024 capital raise, for 2021 the funds received from the NASDAQ listing; for 2020 this includes two capital raises

Note: Rounding differences may occur