Molecular Partners: Building Tomorrow's Breakthroughs

Patrick Amstutz, CEO
Andreas Emmenegger, CFO

Presentation of the H1 2019 Results

August 27, 2019 – Molecular Partners AG (SIX: MOLN)

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Agenda

▪ Review H1 2019 & Corporate Highlights	Patrick Amstutz, CEO
▪ Financial Results H1 2019	Andreas Emmenegger, CFO
▪ Outlook 2019 & Beyond	Patrick Amstutz, CEO
▪ Q&A	

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Review H1 2019
& Corporate Highlights

R&D Highlights H1 2019 – Oncology & I/O

- **MP0250 (VEGF x HGF) in MM:**
  - PI Trial (combo with Velcade®) – Encouraging responses in 1st patient cohorts triggered decision to invest further
  - IMiD Trial (combo with Pomalyst®) – Start of ph 2 trial expected in Q4 19, having received FDA approval
- **MP0250 in EGFR-mut NSCLC in combination with Tagrisso®:**
  - Following lift of partial clinical hold by FDA, strategic decision to discontinue ph 2 trial and focus resources on MM trials
- **MP0274 (Her2):**
  - First patients dosed at level of 4mg/kg in ph 1 dose escalation trial in Her2-positive cancer patients
- **MP0310 (FAP x 4-1BB):**
  - On track to dose the first patient in the phase 1 trial in H2 19 (co-development with Amgen)
- **Research portfolio focused on DARPin® candidates with innovative Therapeutic Designs:**
  - Progress with tumor-localized FAP x CD40, peptide-MHC DARPin® binders and DARPin® T cell-engager candidates

R&D Highlights H1 2019 - Ophthalmology

- **Abicipar by Allergan:**
  - EMA has validated marketing authorization application (MAA) for abicipar
  - EMA decision may be received in H2 2020
  - US launch, following FDA filing and review, expected mid-2020
  - MAPLE trial with further optimized formulation of abicipar: Inflammation rate substantially reduced, severe inflammation more than halved to 1.6%
  - Abicipar expected to be the first anti-VEGF therapy to maintain initial vision gains on true fixed 12-week dosing interval

Team Highlights H1 2019

- Nicolas Leupin, M.D., MBA, appointed as Chief Medical Officer,
  joining from argenx
- Daniel Steiner, Ph.D., appointed to lead the research department,
  has been with company for >10 years in different positions with increasing responsibilities
- 14% year-on-year increase of talent base to 128 full-time employees,
  reflecting ongoing build-out of research and clinical development expertise

Management Team & Board of Directors

EXECUTIVE MANAGEMENT

Dr. Patrick Amstutz, CEO

- Co-founder, former CBO & COO
- **Member of the Board of Directors**
- PhD in biochemistry from UZH

Dr. Nicolas Leupin, CMO

- Proven track record in drug development
- Senior positions at argenx, Celgene

Dr. Michael Stumpp, COO

- Co-founder
- PhD in biochemistry from UZH

Andreas Emmenegger, CFO

- Former CFO Glycart, Finance Roles at Roche
- >20 years experience as CFO of private & listed companies and in fund raising, IPOs

BOARD OF DIRECTORS

Bill Burns, Chairman

- Former CEO of Roche Pharmaceuticals
- Former board member of Roche, Genentech, Chugai Pharmaceuticals, Shire

Göran Ando, Vice Chairman

- Former Chairman, Novo Nordisk
- Former CSO, Pharmacia

Gwen Fyfe

- Former VP, Oncology Development at Genentech

Steven H. Holtzman

- President and CEO, Decibel Therapeutics
- Former EVP, Biogen

William “Bill” Lee

- EVP Research, Gilead

Petri Vainio

- Managing Director, Essex Woodlands Ventures

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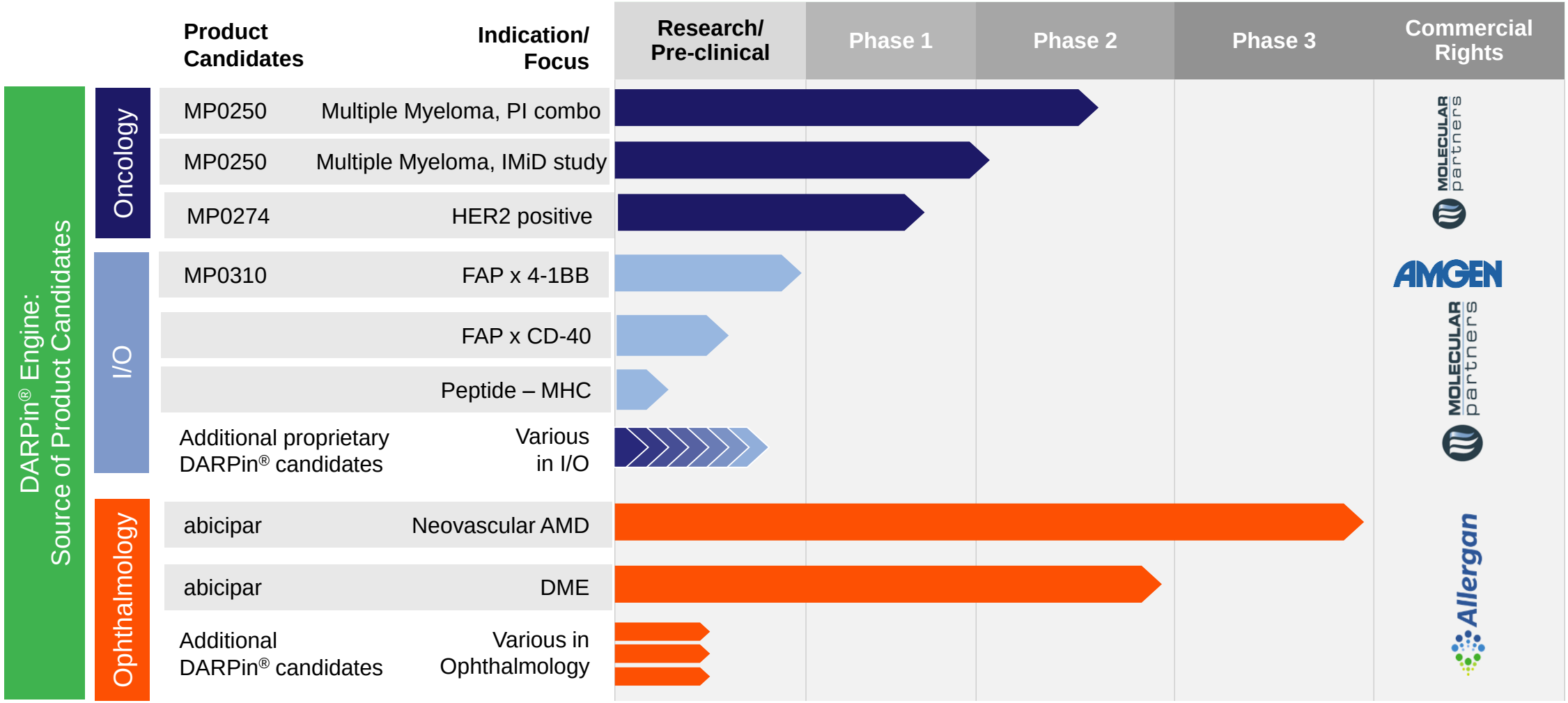
Financial Highlights H1 2019

- Ongoing strong financial position with CHF 123.3mn in cash and short-term deposits
- Total revenues of CHF 13.6mn (vs. CHF 9.4mn H1 2018)
- Operating loss of CHF 12.4mn (vs CHF 12.7mn H1 2018) and
  net loss of CHF 12.7mn (vs CHF 11.7mn H1 2018)
- Positive net cash flow inflow from operating activities of CHF 27.0mn in H1 2019
  (vs negative cash used of CHF 19.4mn in H1 2018);
  USD 50mn collected from Amgen in January 2019
- FY 2019 expense guidance reiterated at CHF 60-70 million
- Forecasted cash runway into 2021, excluding any projected proceeds from expected market launch of abicipar mid-2020

A Balanced and Robust Portfolio



AMD: age-related macular degeneration; DME: diabetic macular edema

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Financial Results H1 2019

Financial Summary H1 2019

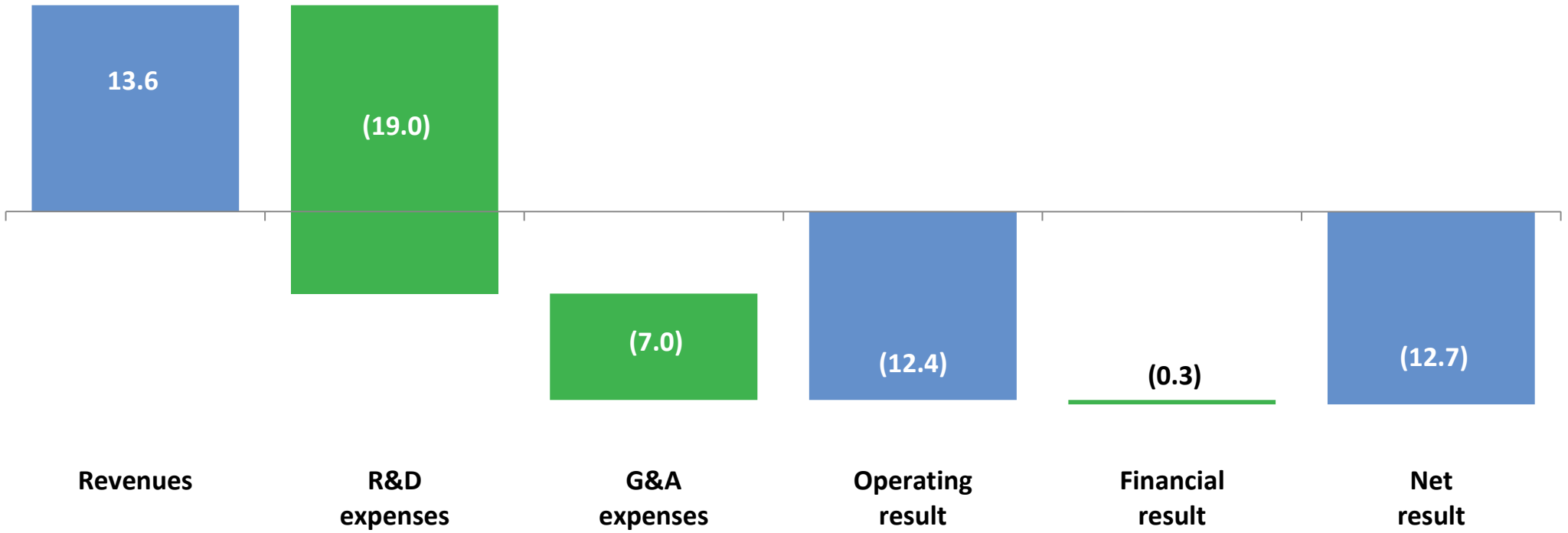
(CHF million; as per IFRS)	***H1 2019***	*H1 2018*	***change***
Revenues	**13.6**	9.4	**4.2**
Total expenses[1]	**(26.0)**	(22.1)	**(3.9)**
Operating result – EBIT	**(12.4)**	(12.7)	**0.3**
Net financial result	**(0.3)**	1.0	**(1.3)**
Net result	**(12.7)**	(11.7)	**(1.0)**
Basic net result per share (in CHF)	**(0.60)**	(0.56)	**(0.04)**
Net cash flow in operations	**27.0**	(19.4)	**46.4**
Cash balance at June 30[2]	**123.3**	122.4	**0.9**

[1] Thereof non-cash costs of CHF 2.3 million in H1 2019 and CHF 3.4 million in H1 2018

[2] Including CHF 55.6 million short-term time deposits as per June 30, 2019 and CHF 29.7 million short-term time deposits as per June 30, 2018

P&L De-composition

in CHF million



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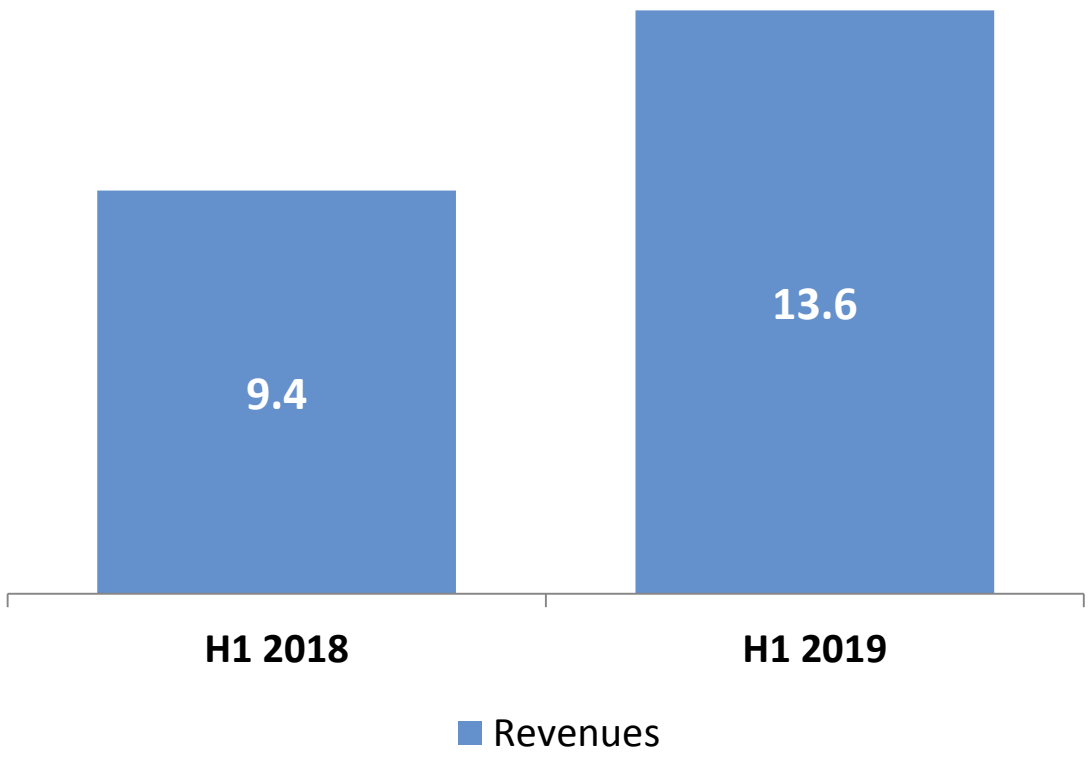
Revenues

In CHF million

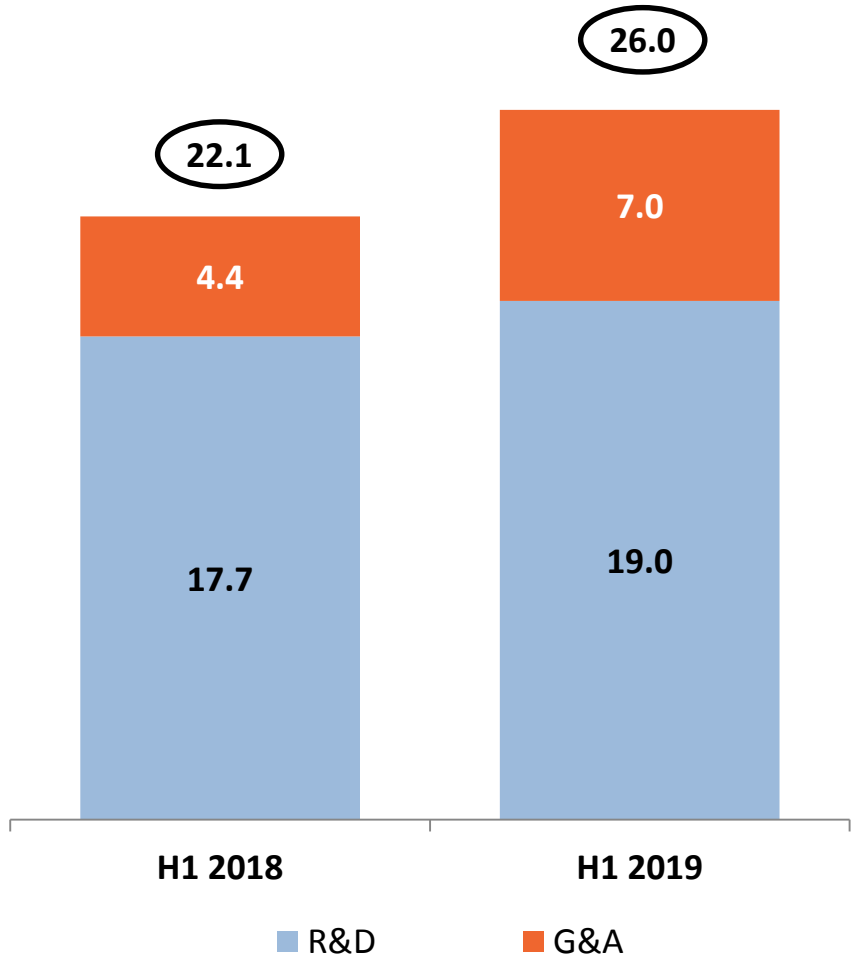


Comments

- CHF 13.6 million revenue recognized out of contract liabilities;
  total amount in H1 2019 relates to Amgen collaboration; as per June 30, 2019: CHF 35.2 million still to be recognized until Q4 2020
- H1 2018: Revenue fully reflects final recognition of Allergan-related revenue

Operating Expenses

in CHF million (incl. depreciation & amortization)



Comments

- In H1 2019 main expense positions and drivers were:
  - CHF 13.9 million people related expenses
  - CHF 7.2 million external R&D costs
  - CHF 4.9 million facility and general office expenses, professional fees, consulting and depreciation
- Includes CHF 2.3 million non-cash effective costs (H1 2018: CHF 3.4 million)

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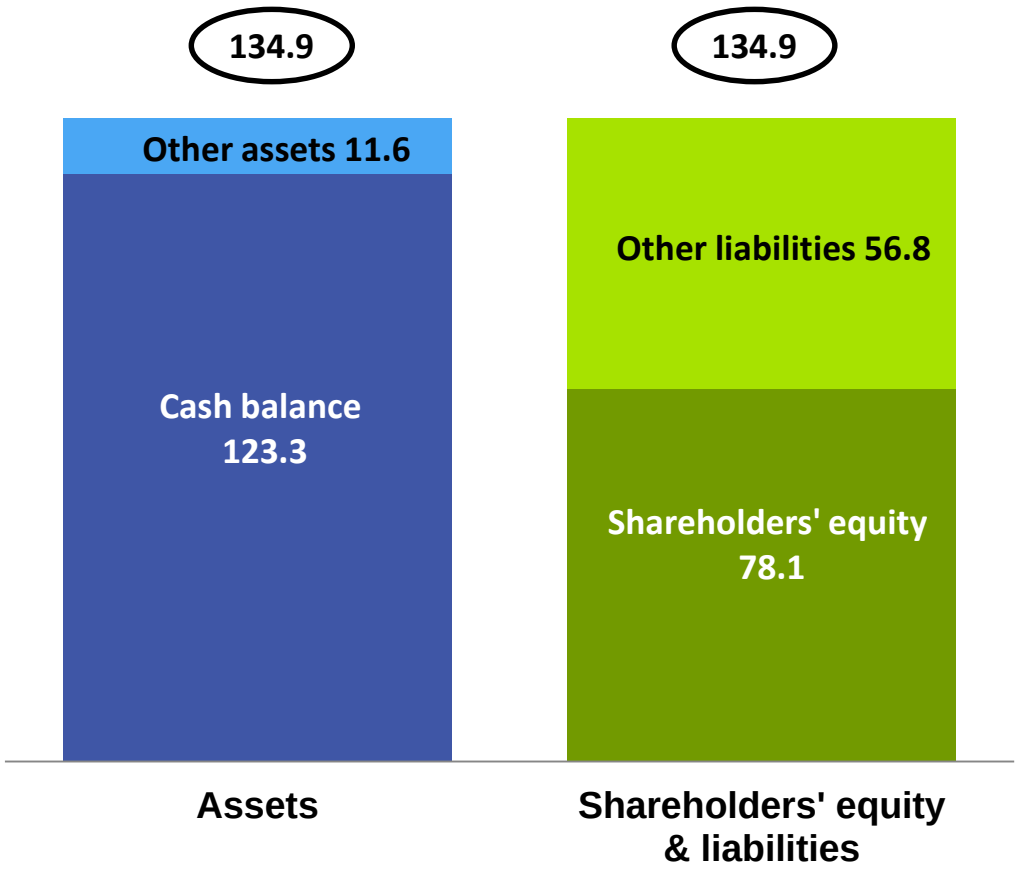
Balance Sheet

as of June 30, 2019 (CHF million)



Comments

- Continuing strong balance sheet
- CHF 123.3 million cash balance (incl. time deposits) – 91% of total assets
- Equity base at CHF 78.1 million
- Debt free
- Other liabilities include CHF 35.2 million in relation to Amgen (revenue to be recognized), CHF 3.2 million Lease liability (following the implementation of IFRS 16 in 2019), CHF 8.6 million for accrued employee benefits plus CHF 9.8 million for other current liabilities

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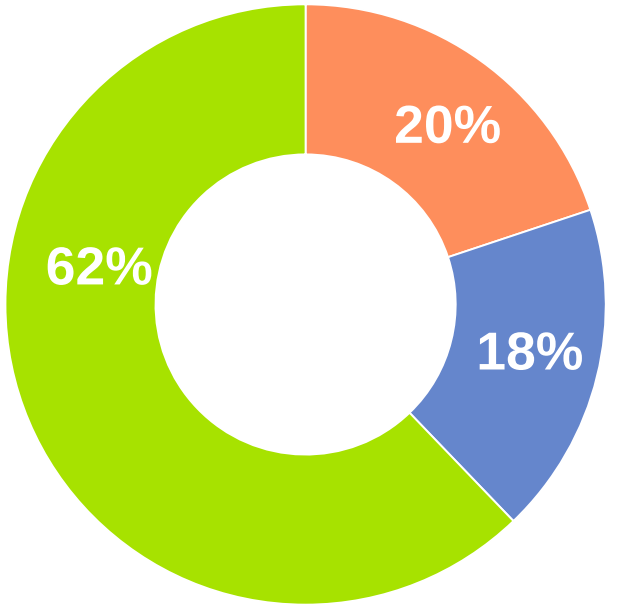
Shareholder Structure

as of June 30, 2019



Highlights

- VC holdings further reduced to ca. 20%
- Listed on SIX Swiss Exchange (SIX: MOLN)
- Included in key indices: SPI, SPI Extra, SXI Life Sciences and SXI Bio+Medtech
- 21.4 million shares outstanding
- CHF 311 million market cap. as of June 30, 2019
- No lock-up restrictions in place
- 86% formal free float as per SIX definition

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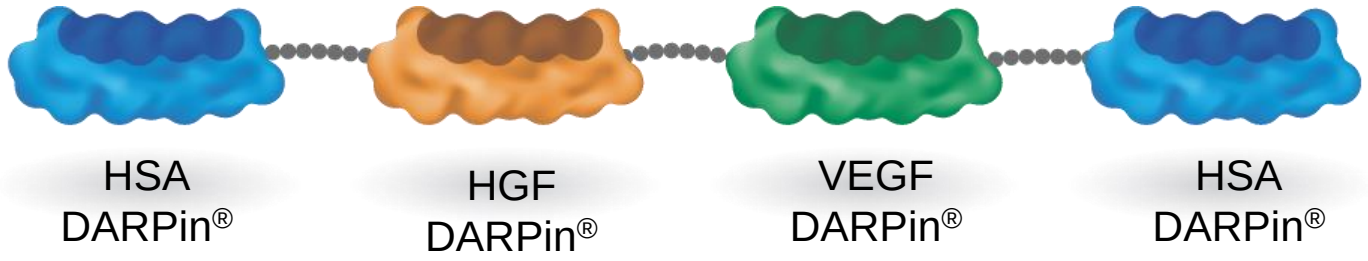
Financial Guidance for FY 2019 Unchanged

- Total expenses of CHF 60-70 million,
  of which around CHF 6 million non-cash effective costs
- Capital expenditures of ca. CHF 2 million
- No guidance on net cash flow;
  timelines and potential milestones payments with partnerships not disclosed
- Guidance subject to progress and changes of pipeline

Oncology & I/O: MP0250, MP0274, MP0310, Research

MP0250: Our First Multi-DARPin® Product Candidate

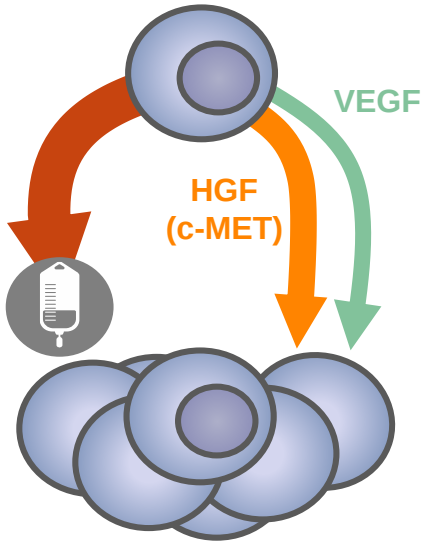


- Medical Need: Some tumors develop adaptive resistance to SOC by up-regulating VEGF and HGF
- MoA: MP0250 inhibits both VEGF and HGF simultaneously

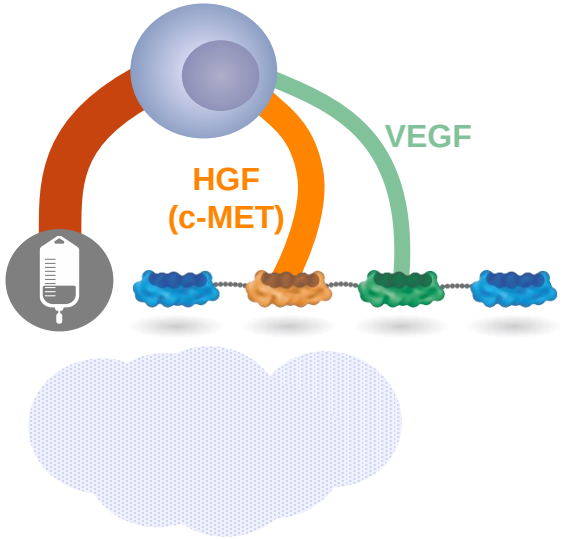
  Blocking these adaptive escape pathways may restore clinical sensitivity to SOC
- Status: Phase 2 in MM

  Dosing: 8 mg/kg/3weeks

Upregulation of escape pathways after SOC



Medical need: Agents that block escape pathways to SOC



SOC, standard of care; HSA, human serum albumin.

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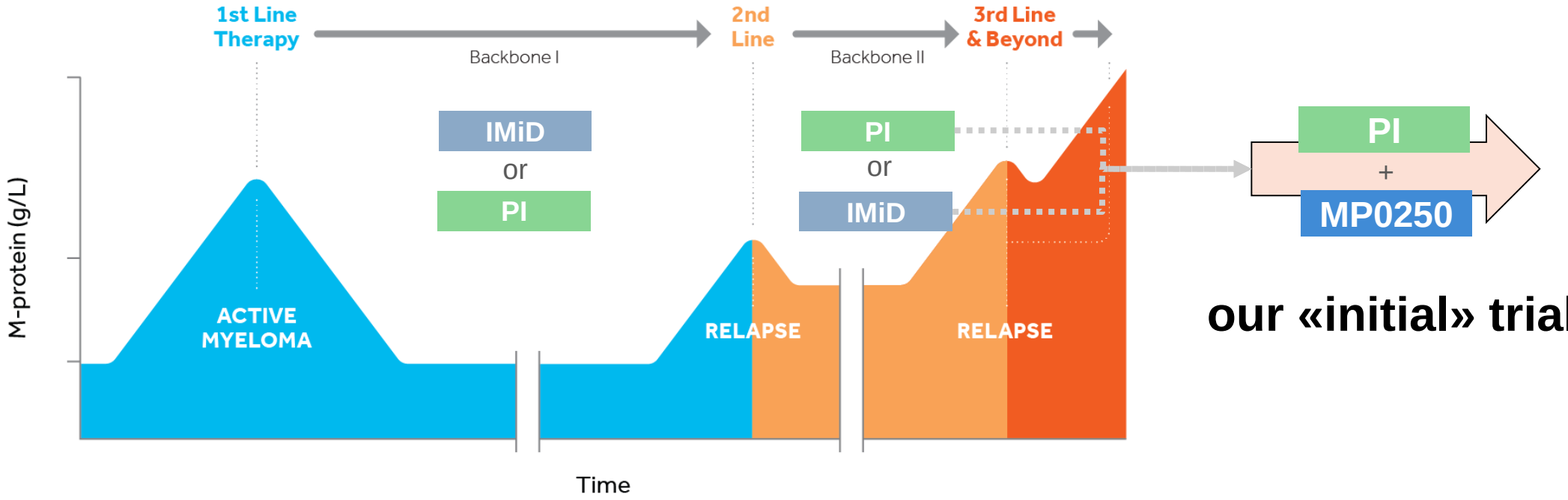
Testing how MP0250 can Revert Adaptive Resistance in MM

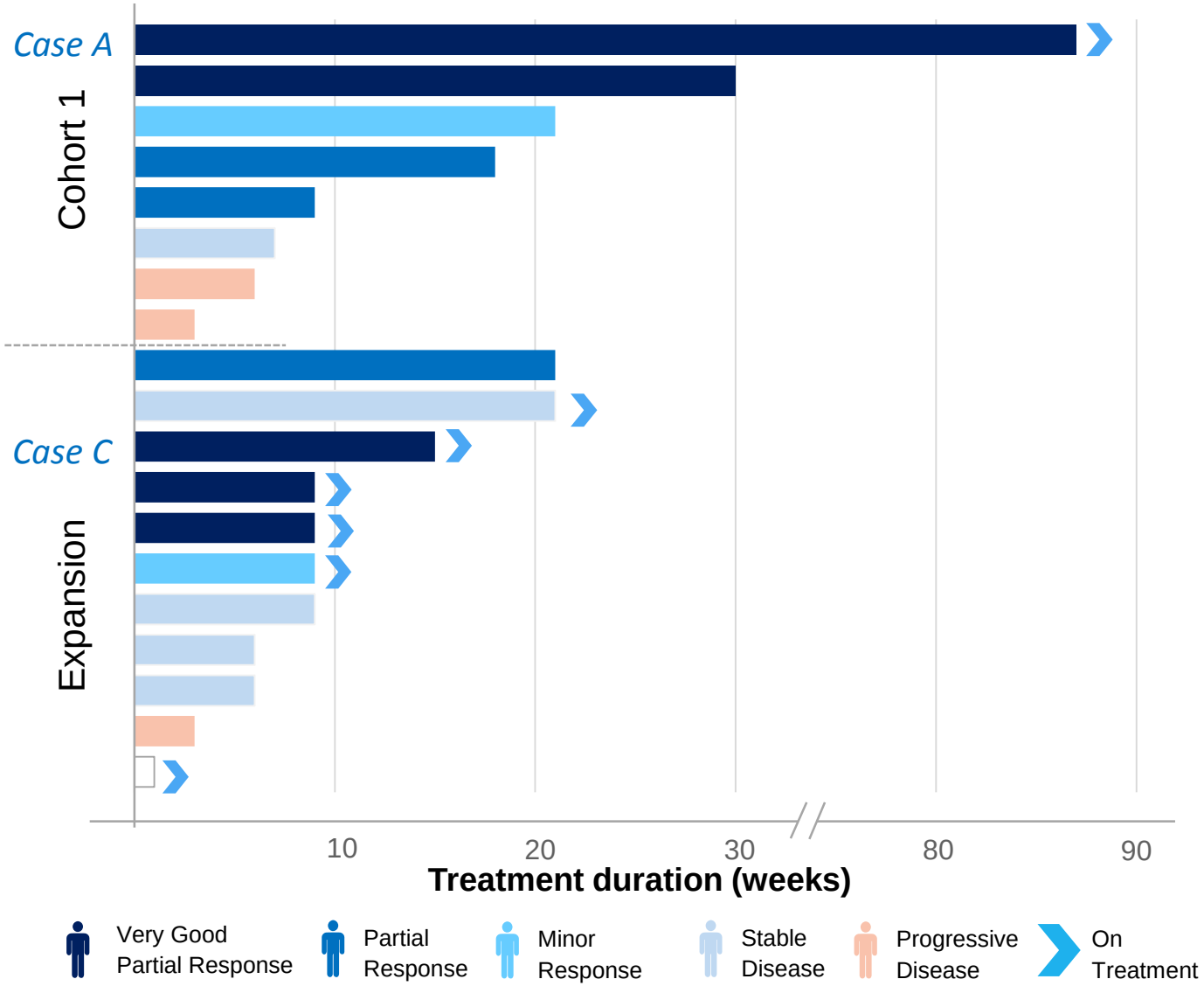
Illustrative course of disease of a MM patient[1]



our «initial» trial

1) Hajek, R. Strategies for the Treatment of Multiple Myeloma in 2013: Moving Toward the Cure. In "Multiple Myeloma: A Quick Reflection on the Fast Progress" (2013).

MP0250 Phase 2 Study in MM: Promising Signs of Efficacy[1)]



- Patient population: Patients with MM with ≥ 2 prior lines of treatment, including IMiD and PI, and no response or early relapse
- Treatment regimen: Velcade®/Dexamethasone plus MP0250
- 8 of 18 patients on 8mg/kg dose with objective responses (to date)
- Durable remission observed in heavily pretreated patients
- Patients ongoing (❯)

1) Data cut-off: 4 May 2019. dose level: 8mg/kg/3weeks; based on preliminary data

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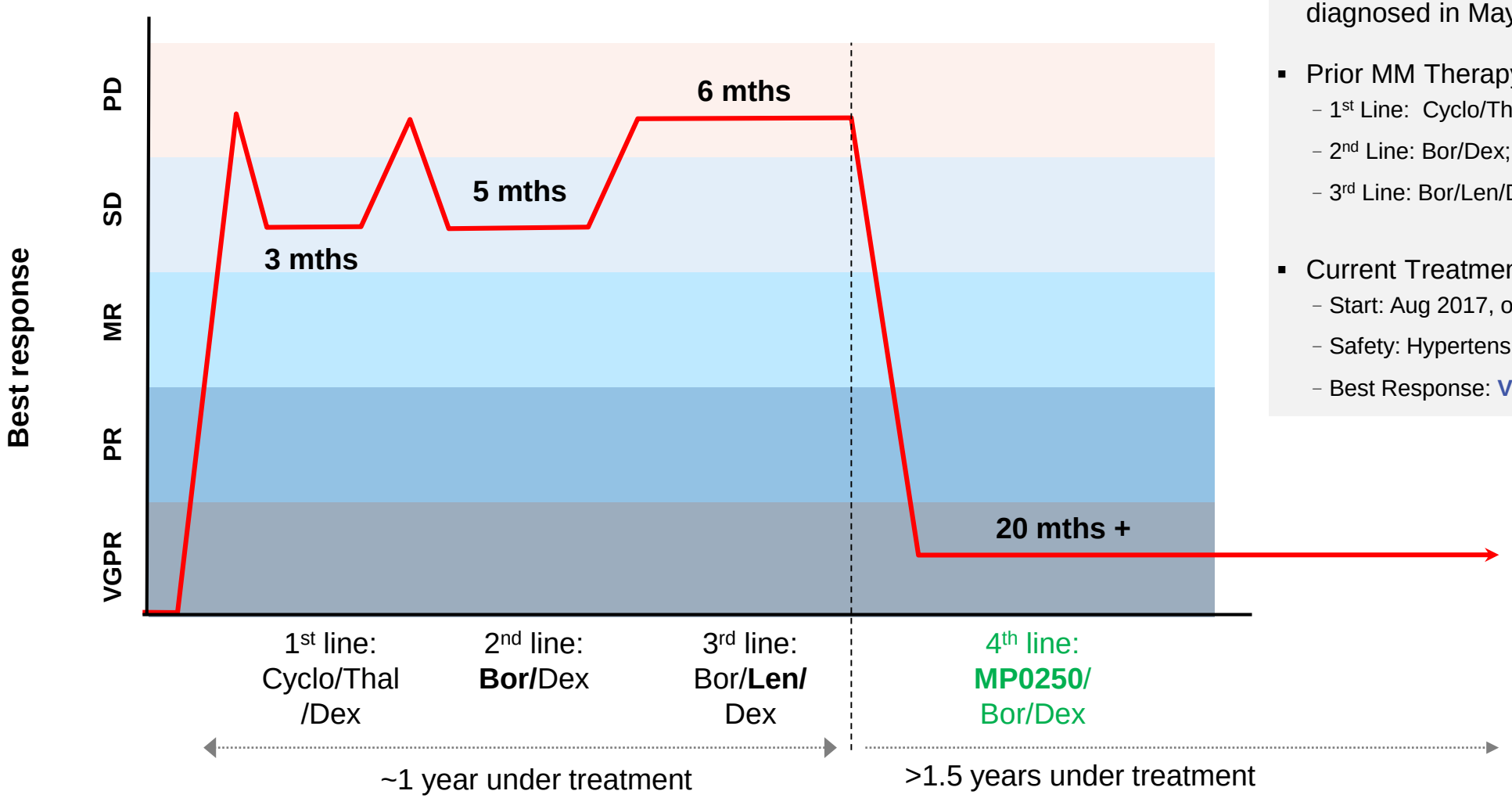
1st Case Study: Patient A (4th line, coming from PI)



- Female 63y, MM IgG kappa diagnosed in May 2016
- Prior MM Therapy:
  - 1st Line: Cyclo/Thal/Dex; Best Response: SD
  - 2nd Line: Bor/Dex; Best Response: SD
  - 3rd Line: Bor/Len/Dex: PD
- Current Treatment: 4th line - MP0250
  - Start: Aug 2017, ongoing
  - Safety: Hypertension, Polyneuropathy
  - Best Response: **VGPR**, ongoing

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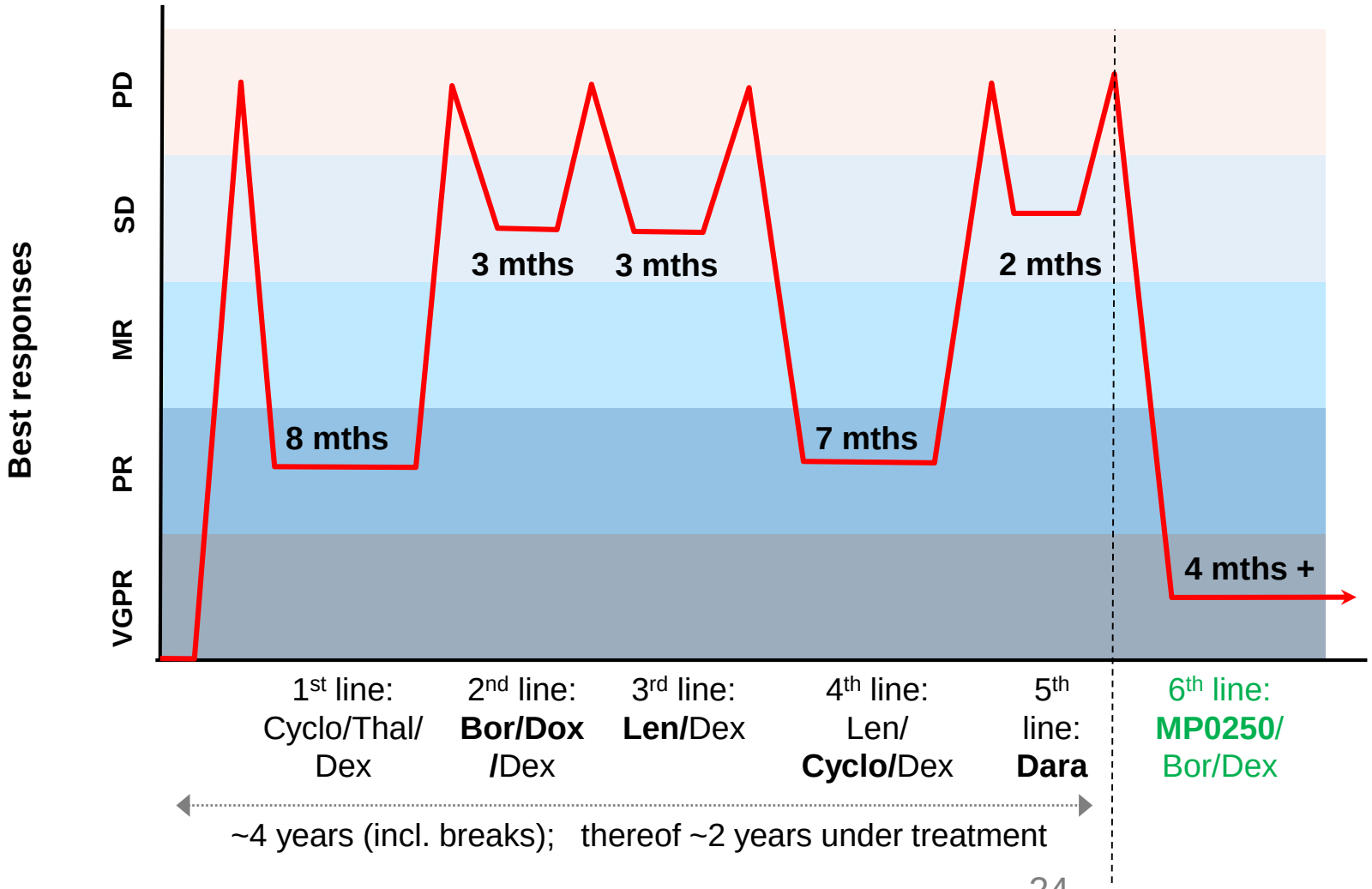
2nd Case Study: Patient C (6th line, coming from Dara)



- Female 66y, MM IgG kappa diagnosed in Sep 2014
- Prior MM Therapy:
  - 1st Line: Cyclo/Thal/Dex; Best Response: PR
  - 2nd Line: Bor/Dox/Dex; Best Response: SD
  - 3rd Line: Len/Dex; Best Response: SD
  - 4th Line: Len/Cyclo/Dex; Best Response: PR
  - 5th Line: Dara; Best Response: SD
- Current Treatment: 6th line - MP0250
  - Start: Nov 2018, ongoing
  - Safety: Hypertension
  - Best Response: **VGPR**, ongoing

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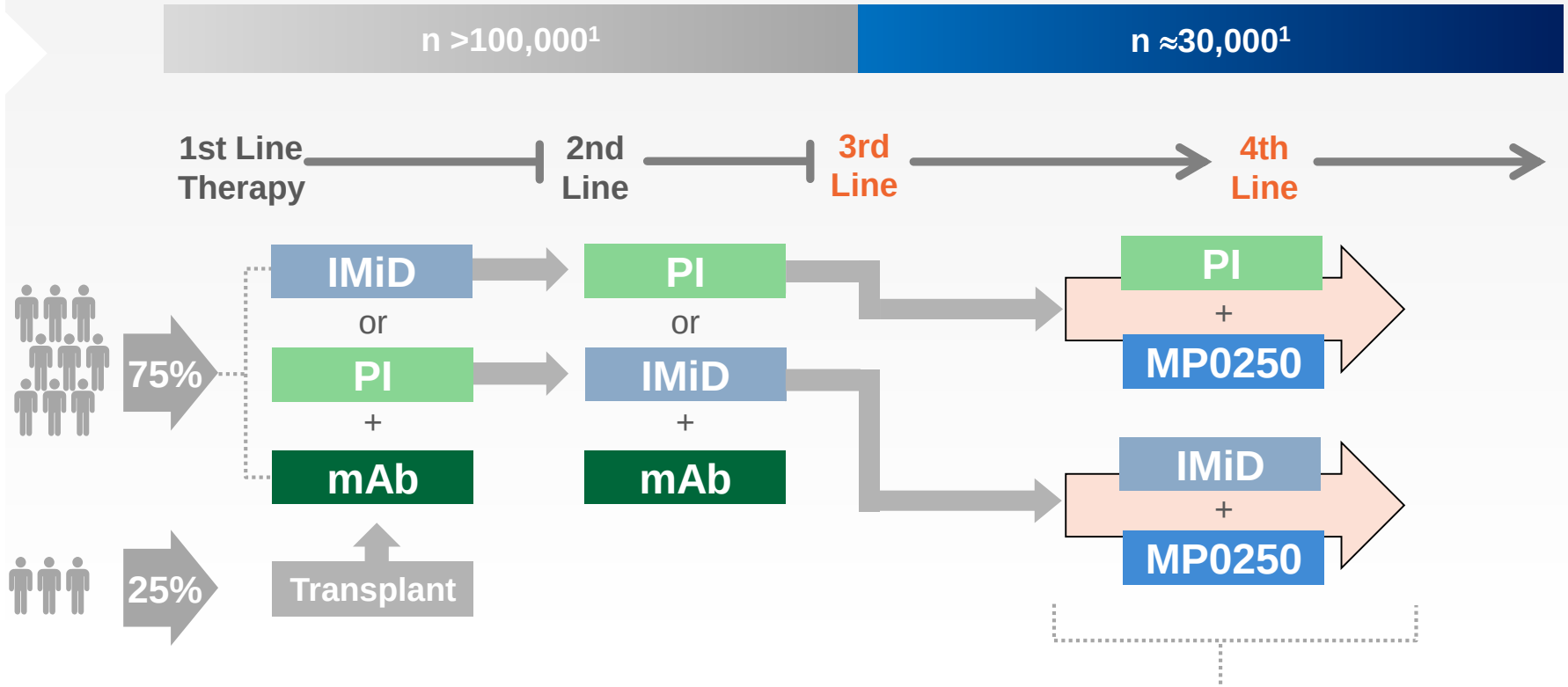
MP0250 Positioning in MM and Our «planned» Trials

Multiple myeloma:
2nd most common blood cancer

Global market value of MM treatment:
$13 billion

expected to exceed
$20 billion by 2022

(CAGR: 13%)[1]

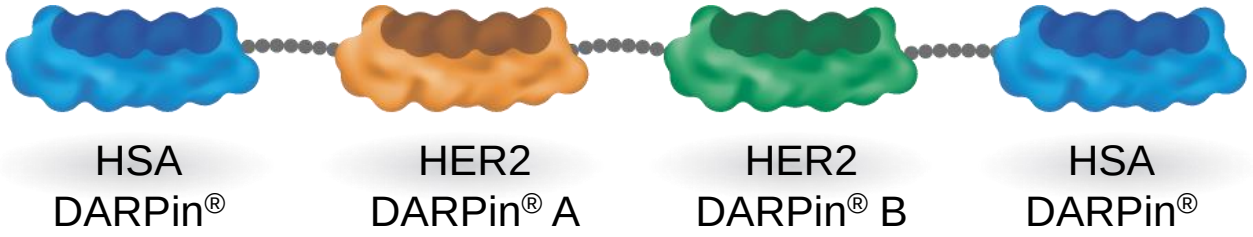


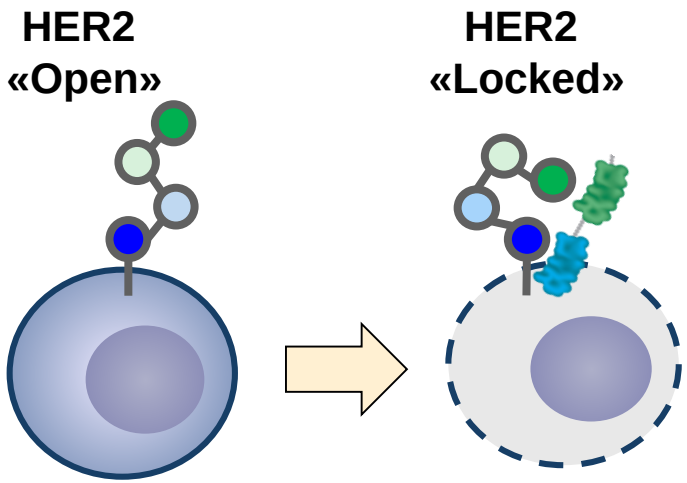
MP0250 has the potential to become backbone for later lines of treatment

New trial design:
2nd MM trial
(IMiD combo)

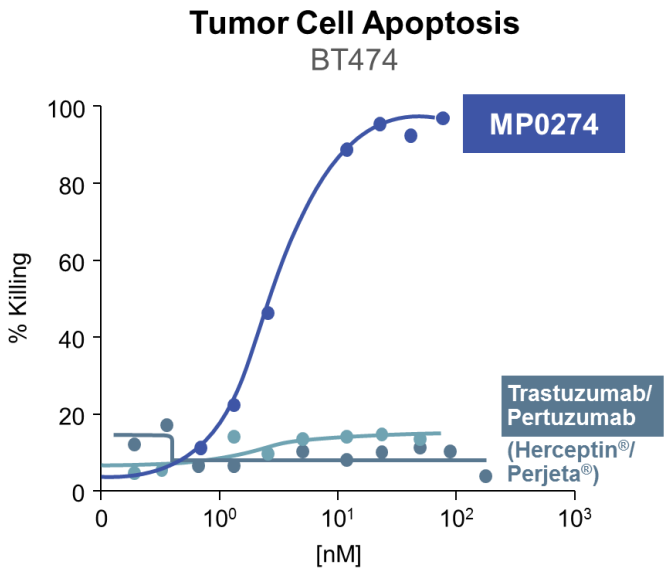
1. Including US/5EU/JP. Datamonitor, August 2018.

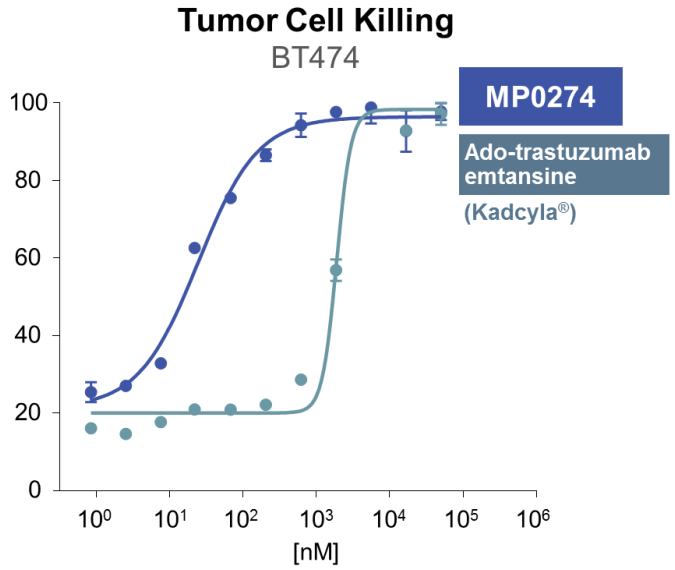
MP0274: Killing HER2+ Cells by New MoA





Apoptosis:
Tumor cell suicide





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MP0274 in HER2+ Patients:
Phase 1 Trial Progressed to Next Dose Level of 4mg/kg

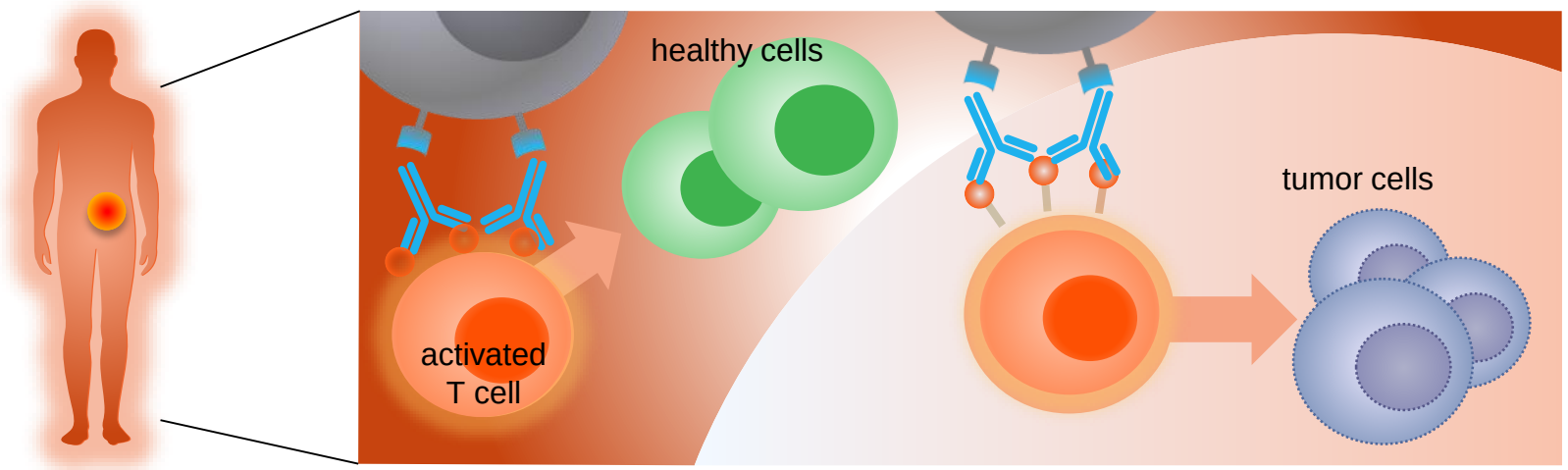
- Despite good antibody-based HER2+ treatments, eventually patients progress
- Novel mode of action: MP0274 is an allosteric inhibitor blocking HER2- and HER3-signaling and inducing apoptosis
- Dose escalation of Phase 1 trial in HER2 positive tumor patients that have progressed on SOC
- Phase 1 trial in Europe: First patients dosed at level of 4mg/kg
- Further updates on safety profile of MP0274 expected in H2 2019

Immuno-Oncology: Expand the Therapeutic Window Through Tumor-Localized Immune Modulation

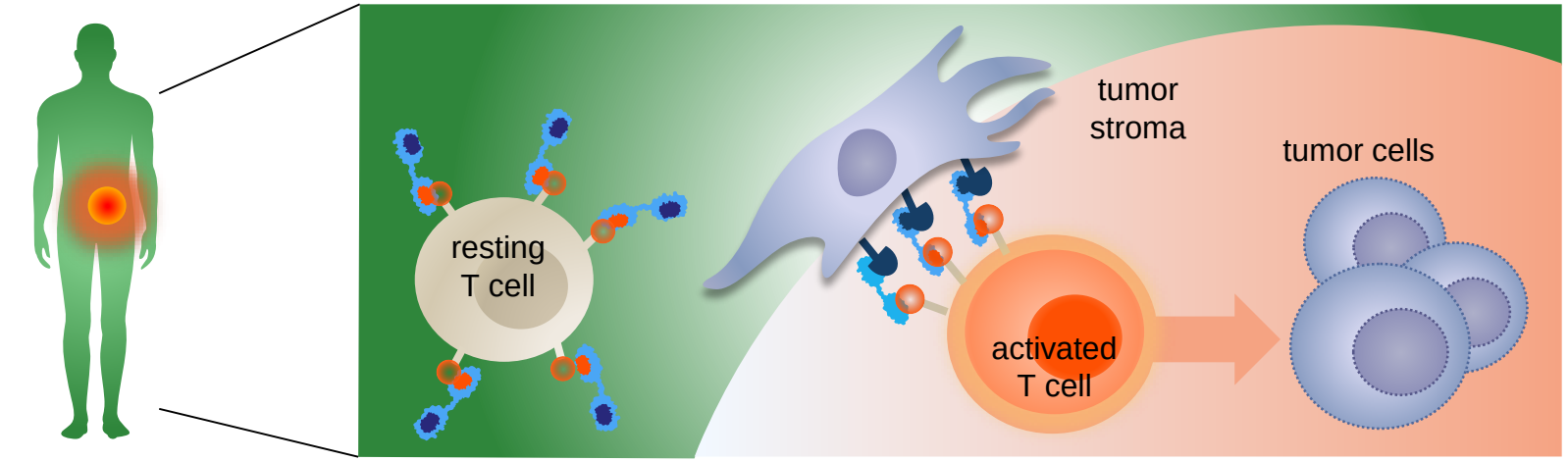
MP0310

FAP x CD40

Current IO therapeutics that activate the immune system (agonists) throughout the body show systemic side effects that can limit the effective dosing



Tumor-localized IO therapeutics that activate immune cells preferentially within the tumor may both increase efficacy and reduce systemic toxicities



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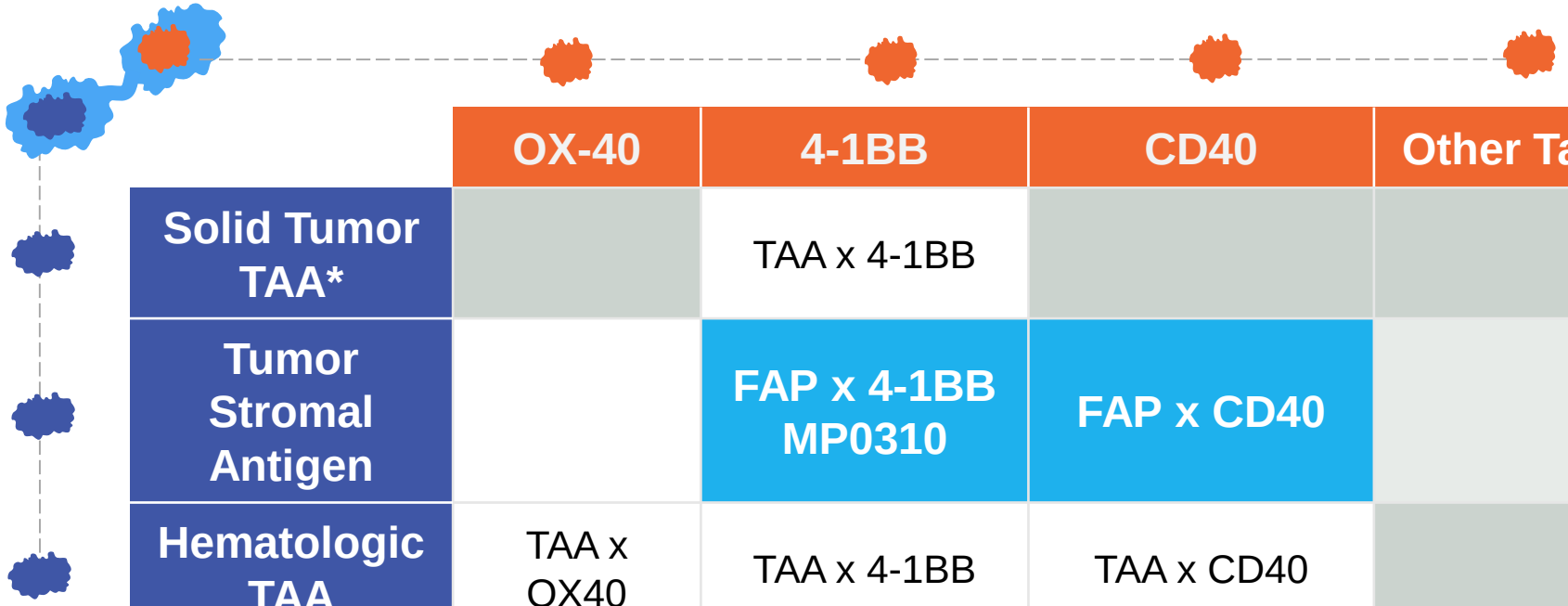
Matrix of Tumor-Localized Immune Modulators



Localizer \ Immune Modulator	OX-40	4-1BB	CD40	Other Targets
Solid Tumor TAA*		TAA x 4-1BB		
Tumor Stromal Antigen		FAP x 4-1BB MP0310	FAP x CD40	
Hematologic TAA	TAA x OX40	TAA x 4-1BB	TAA x CD40	

*Tumor-Associated Antigen (TAA)

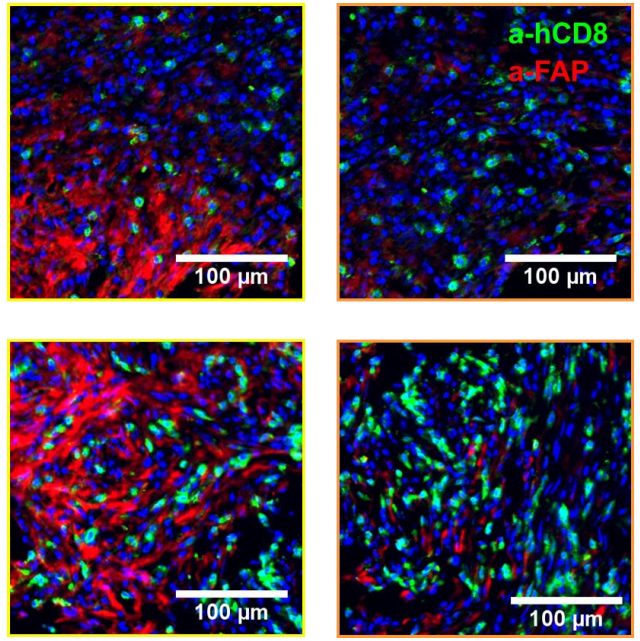
Matrix of Tumor-Localized Immune Modulators

Immune Modulator

Localizer

	OX-40	4-1BB
Solid Tumor TAA*		TAA x 4-1BB
Tumor Stromal Antigen		**FAP x 4-1BB MP0310**
Hematologic TAA	TAA x OX40	TAA x 4-1BB

+ MP0310



*Tumor-Associated Antigen (TAA)

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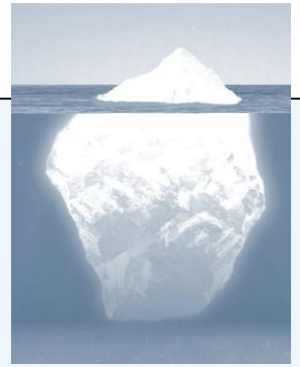
Peptide-MHCs – DARPin® Approach for «Inaccessible» Targets



Antibody-based approaches:
Limited success with mAbs, BiTEs, CAR-T cell, etc. to target pMHC complexes

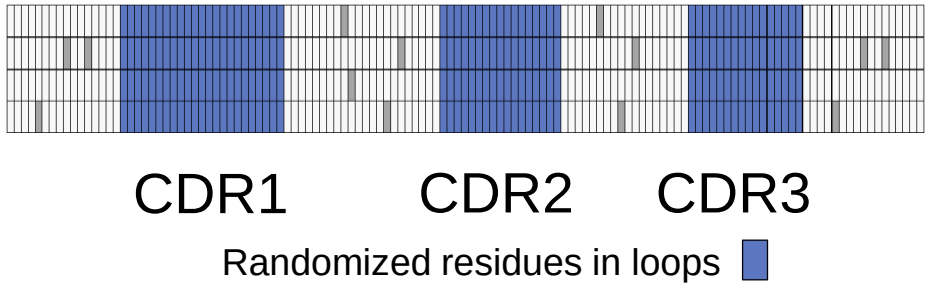
Soluble T cell receptor approaches:
limited by biophysical characteristics and rather low affinity to pMHCs

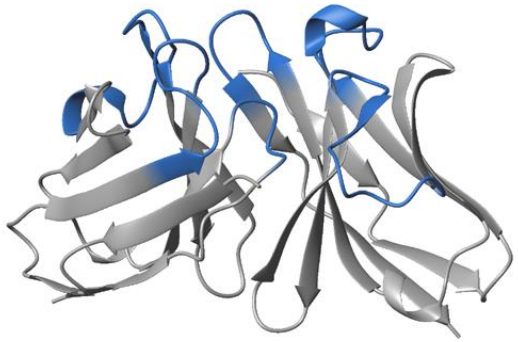
DARPin®-based approaches:
Research projects to test DARPin® binders to pMHCs in oncology and virology

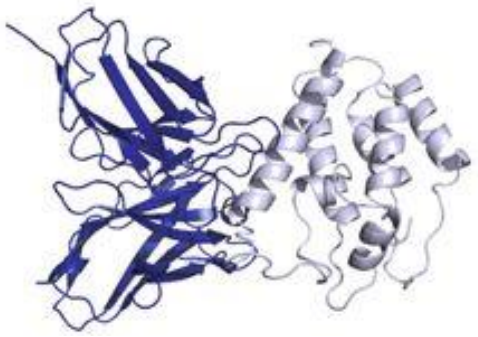
Peptide-MHC represents a novel class of targets amenable to several effectors functions

DARPin® vs. Antibody-Target Interaction:
Leverage Differentiated DARPin® Scaffold for p-MHC

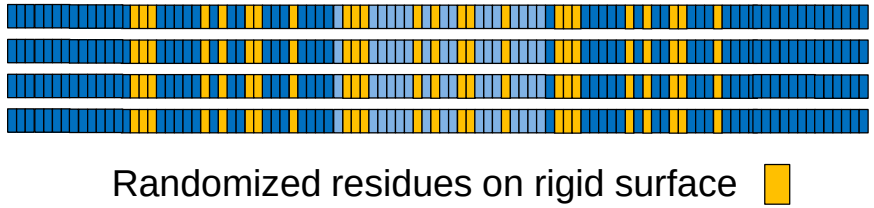
Antibody (Ig-) Domain: binding via flexible loops

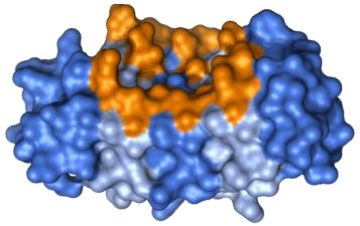


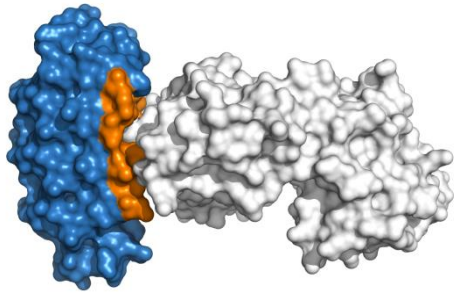




DARPin® Domain: binding via rigid surface







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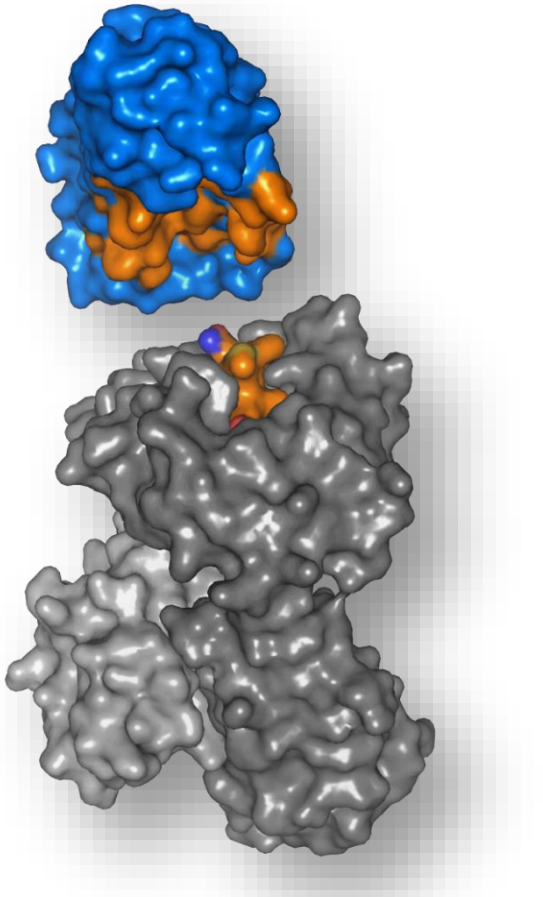
Peptide HLA Complexes as Highly Selective Targets for DARPin®-based Therapeutics



Schematic illustration:
DARPin® (blue with binding surface in orange) docking specifically to the peptide region (orange) of HLA-A02 (grey)

Therapeutic opportunity

- Majority of cancer therapeutics directed to targets presented on cell surface
- Accessing the intracellular target space by generating highly selective DARPin® molecules that bind to intracellular peptides presented on cell surface as HLA-peptide complexes
- Opens substantial target space in:
  - Oncology
  - Virology
  - Autoimmunity

Potential technological differentiation

- Challenging to generate antibodies and enhanced TCRs which bind to peptide-HLA with both high selectivity and high affinity
- Investigation of differentiation opportunity for DARPin® scaffold resulting from:
  - Rigidity of DARPin® binding surface (relative to TCRs and antibodies) generally triggering highly specific interactions with protein targets
  - In addition, binding surface may optimally fit peptide-HLA surface (*schematic illustration*)

Highlights abicipar

Abicipar on Track for Targeted Market Launch in 2020

- Primary and secondary endpoints of Phase 3 trials support abicipar potential to become the first fixed 12-week anti VEGF in nAMD
  - Reduce patient burden from injections and allow for less doctor visits
  - Potential to translate visual acuity gains as seen in clinical trials into the real world setting
- Data from MAPLE trial outline pathway for ongoing optimization of manufacturing process and continued reduction of intraocular inflammation
  - Severe inflammation down to 1.6% (vs. 3.5%); no cases of endophthalmitis or retinal vasculitis
- **EMA has validated MAA for abicipar,** corresponding EMA decision possible by H2 2020
- US launch, following FDA filing and review, expected mid-2020
- Allergan plans to start DME trial in 2020, based on material produced with modified manufacturing process

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Outlook 2019 & Beyond

Key Messages

- **Clinical-stage oncology pipeline**
  - **MP0250 focused on MM** with encouraging results**,** strategic decision to discontinue NSCLC trial
  - **MP0274** dose-escalation in Her2+ cancers ongoing at 4mg/kg

- **First I/O DARPin®** candidates with novel **Therapeutic Design** emerging**:**
  - **Tumor localized immune modulators progressing: MP0310** on-track to dose the first patient in H2 2019; **FAP x CD40** DARPin® molecule moving towards candidate selection
  - DARPin® binders to **peptide-MHC** complexes progressing with support of Gilead
  - **CD-3 DARPin® binders** established

- **Abicipar Phase 3 in nAMD progressing with Allergan:**
  - Further optimized formulation resulted in halving of severe inflammation (**MAPLE trial**)
  - **EMA validated MAA** with decision expected by H2 2020; US launch expected mid-2020

Expected Catalysts 2019 and Beyond

	2019	2020
Abicipar	✓ MAPLE: data of further optimized material ✓ Filed in H1 19 according to plan	▪ nAMD Launch* ▪ DME: P3 start*
MP0250	▪ Additional data: ongoing ph 2 MM trial ▪ Start of ph 2 PI and IMiD-combo trial in MM ▪ ~~Update on ph 2 NSCLC trial~~	▪ Interim ph 2 data: PI-combo trial ▪ Interim ph2 data: IMiD-combo trial
MP0274	▪ First safety & interim efficacy data	
MP0310	▪ FIH with MP0310 (mono therapy)	▪ MP0310 combination trials
Research	▪ Advance DARPin® candidates ✓ Establish novel therapeutic designs	
Capital	Funding into 2021 (excl. any future proceeds related to abicipar and partnerships)	

* as per guidance from Allergan

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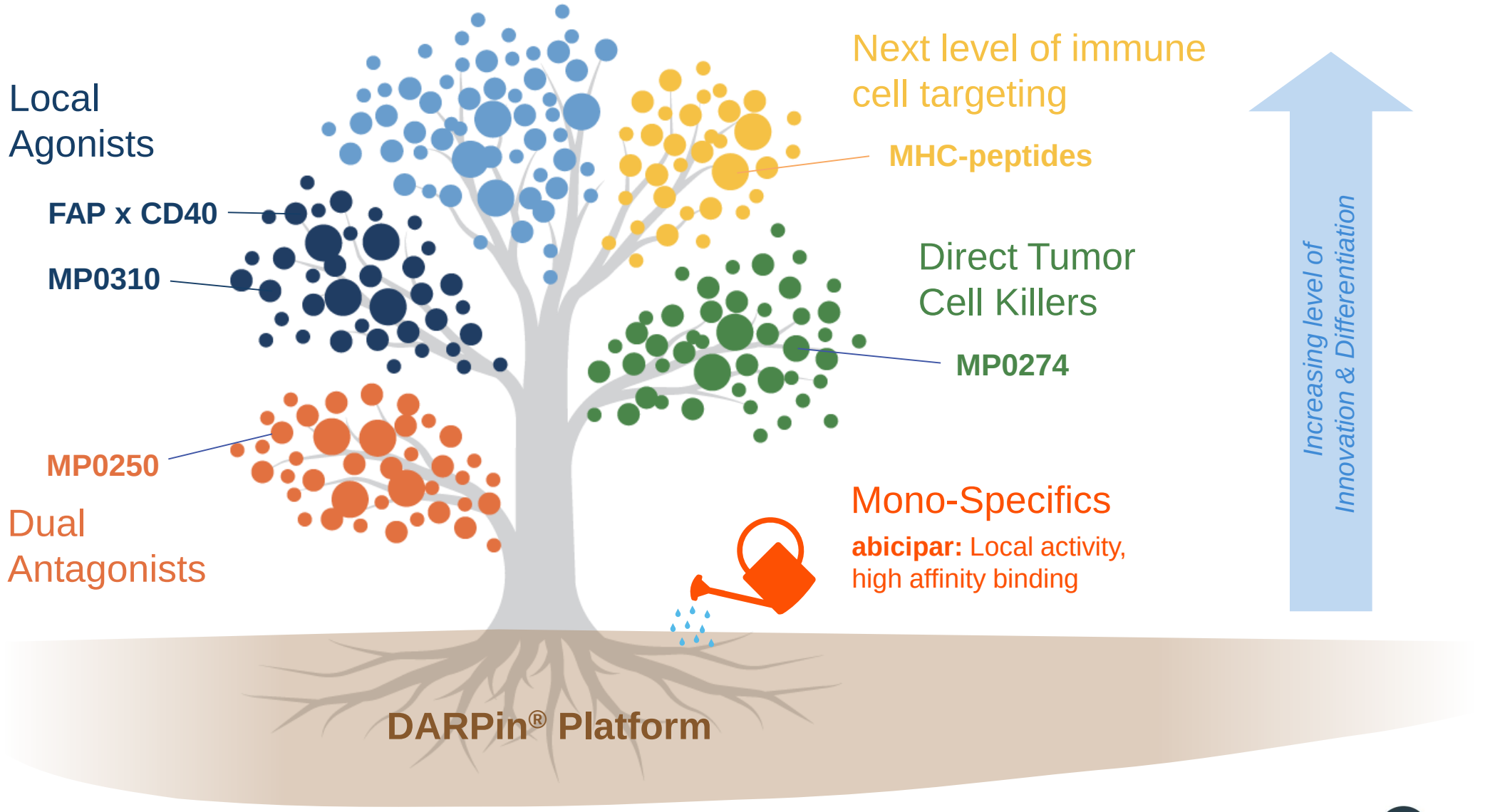
Tree of Evolution of DARPin® Approaches



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Thank you

Our Purpose

Transform the lives of people with cancer by delivering truly innovative therapies

Questions?

Our Vision

Build a leading fully integrated oncology company

Our Core

A passionate team dedicated to moving the needle of medicine

Our Strategy

Rapidly innovate using our DARPin® approach to create new therapeutic designs

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IR Agenda

October 30, 2019	Publication of Q3 Interim Management Statement
December 12, 2019	R&D Day in New York