Building Tomorrow's Breakthroughs

R&D Day of Molecular Partners AG, Switzerland (SIX: MOLN)
December 6, 2018

MOLECULAR partners

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Welcome to R&D Day 2018

12:00 – 12:30
CORPORATE OVERVIEW

Dr. Patrick Amstutz
Chief Executive Officer

12:30 – 12:50
ABICIPAR UPDATE

Dr. Yehia Hashad
Vice President and Global Head of Clinical Development, Ophthalmology, Allergan

12:50 – 1:10
RESEARCH STRATEGY

Dr. Pamela Trail
Chief Scientific Officer

1:10 – 1:30
CLINICAL DEVELOPMENT

Dr. Andreas Harstrick
Chief Medical Officer

1:30 – 1:50
MULTIPLE MYELOMA

Dr. Robert Orlowski
Chairman Ad Interim, Director of Myeloma, Professor of Medicine, Departments of Lymphoma/Myeloma and Experimental Therapeutics, MD Anderson Cancer Center

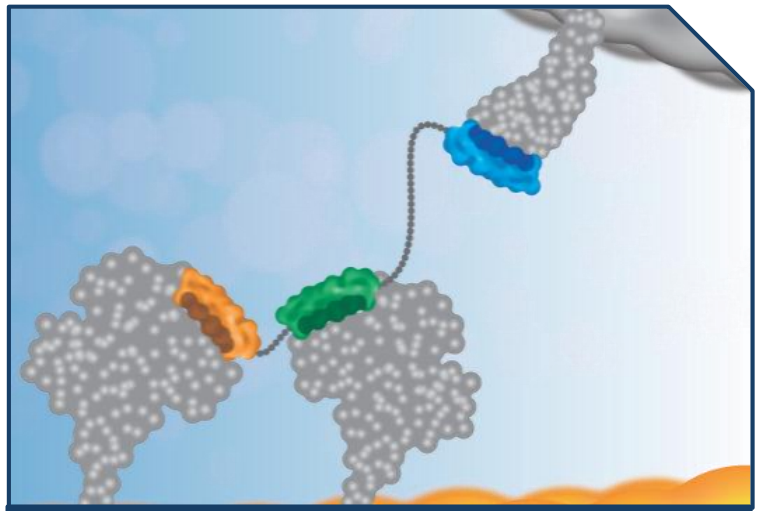
1:50 – 2:00
KEY TAKEAWAYS

2:00 – 2:30
Q&A

“Building Tomorrow’s Breakthroughs”

OUR CORE PURPOSE

Our mission is to transform the lives of cancer patients by providing truly innovative DARPin® therapies.



OUR STRATEGY

Our DARPin® technology opens new therapeutic design space and a fast cycle of innovation. We rapidly test ideas and develop clinical DARPin® candidates to show patient benefit, alone or together with our partners.

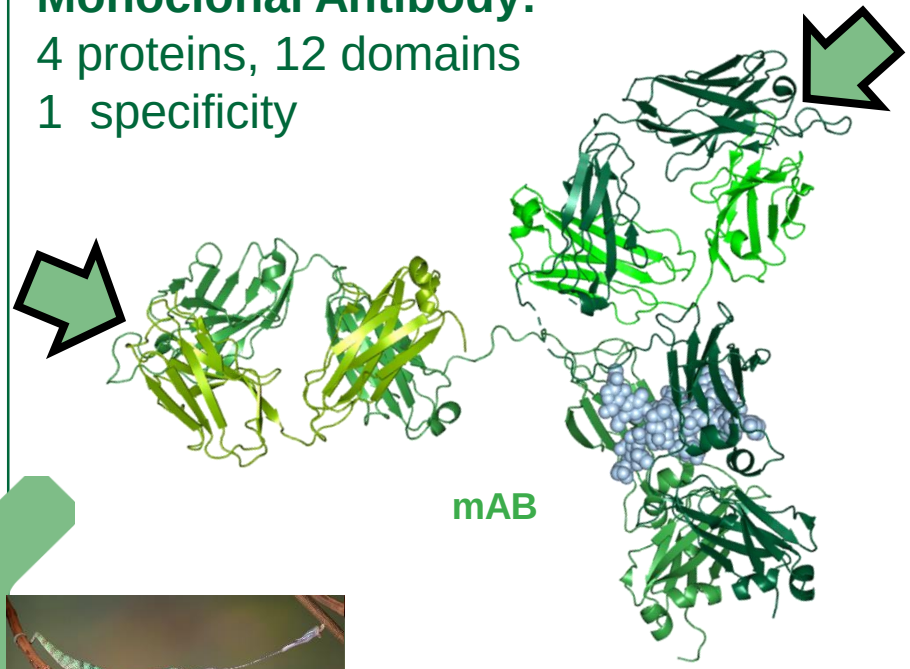
OUR VISION

We aim to move the needle of medicine by repeatedly delivering innovative therapies as a leading oncology company.

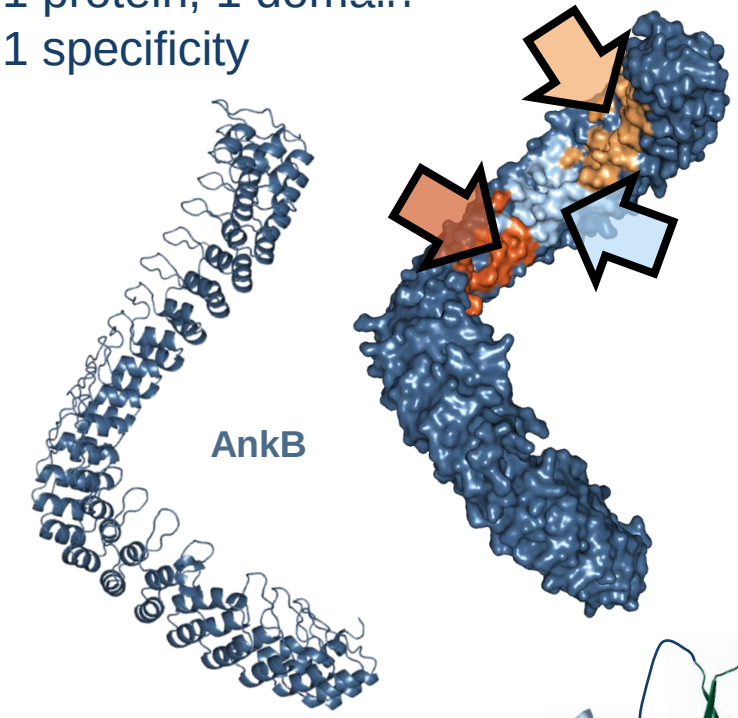
Nature Evolves Highly Specific Solutions

Repeat Proteins: Nature's Choice for Multi-Specific Binding

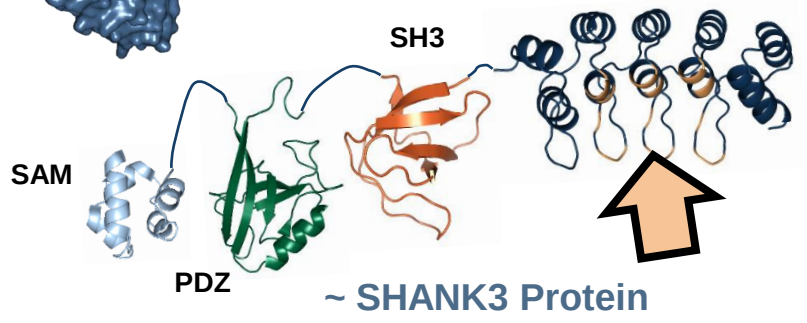
Monoclonal Antibody:
4 proteins, 12 domains
1 specificity



Ankyrin Repeat Protein:
1 protein, 1 domain
1 specificity



Ankyrin Domain



~ SHANK3 Protein

Target Binding Site

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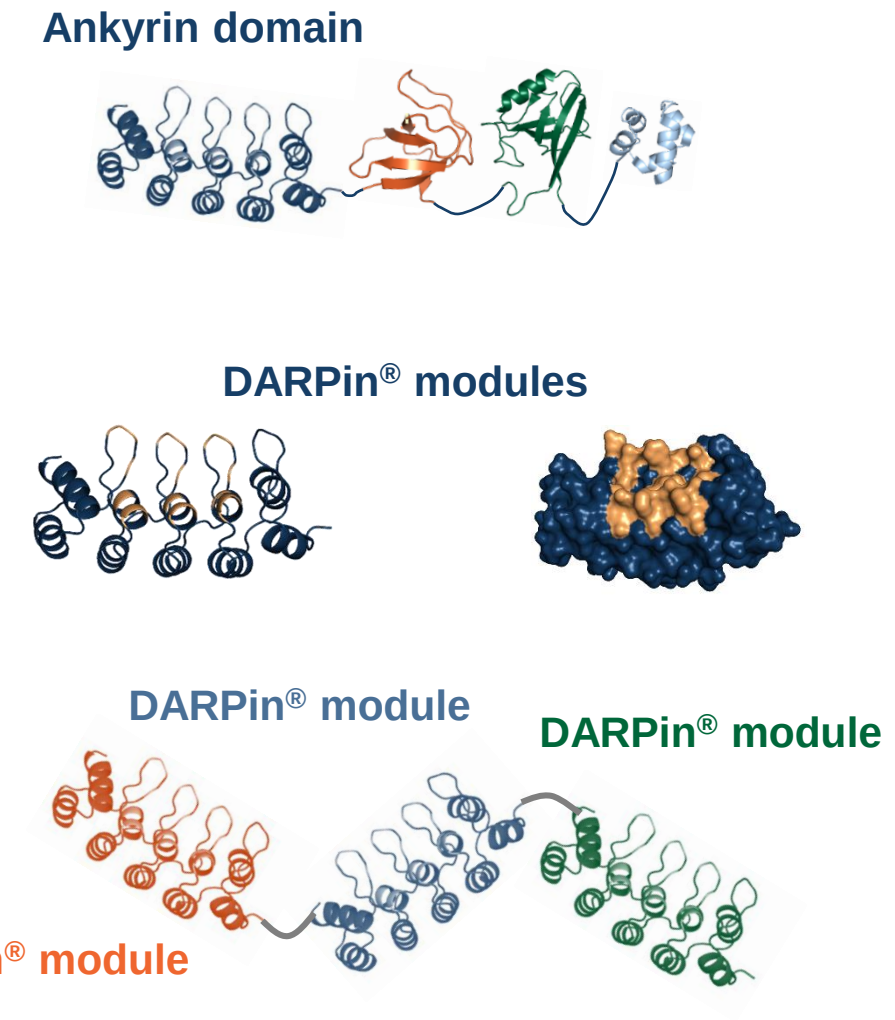
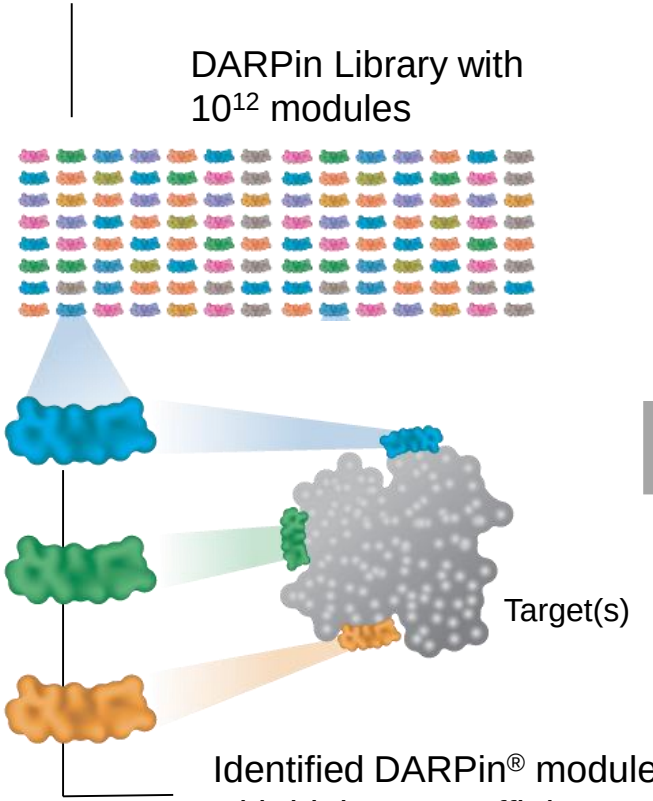
Natural Repeat Proteins as Inspiration for DARPin® Proteins

- Natural ankyrin repeat proteins
  - One of the most common binding proteins
  - Nature's choice for multi-specifics
- DARPin® libraries (10^{12} library members) harbor highly specific DARPin® modules to virtually any given target
- Selected DARPin® modules are linked together
  - Novel architectures open novel therapeutic design space

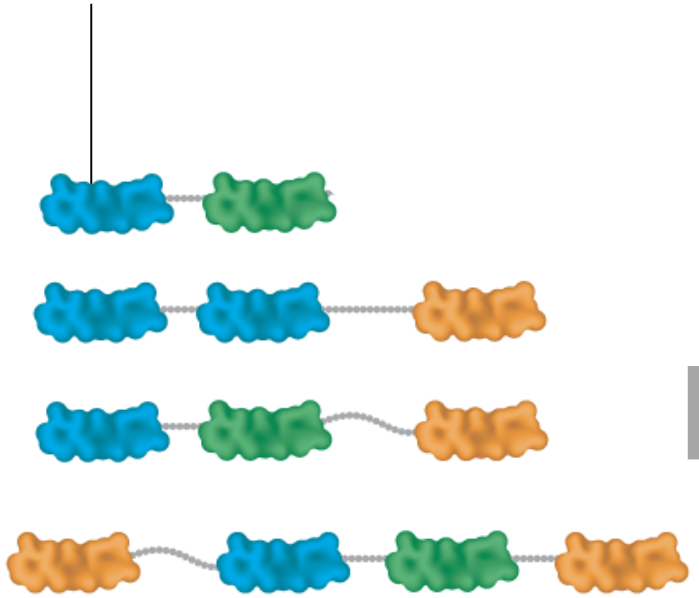


DARPin® Engine: Therapeutic Designs Tailored to Function

DARPin® module selection

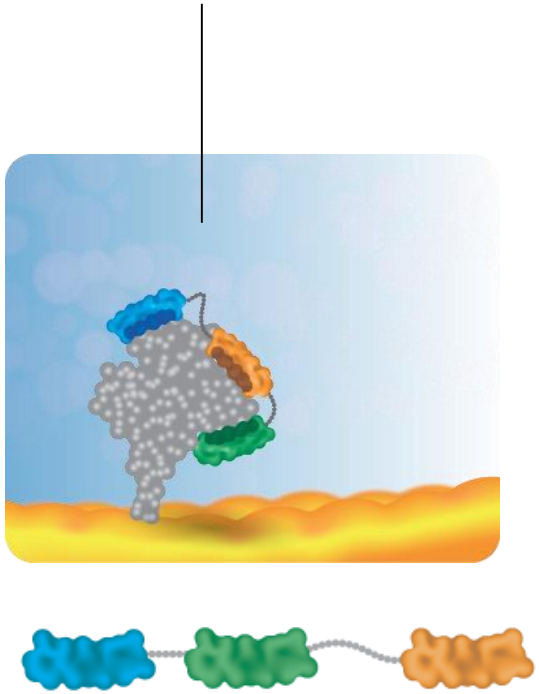


Opening novel Therapeutic Design Space



Multi-DARPin® product candidates

Selecting the «winning» Therapeutic Design



Therapeutic Design matches its function

Molecular Partners: A Swiss Biotech by the Numbers

1 TRILLION
DARPin® modules in our library

71 ISSUED PATENTS

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130 TEAM MEMBERS

8 % GROWTH IN FTE
since 2017, nearly all in R&D

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4 DEVELOPMENT
DARPin® candidates

18+k PATIENTS TREATED
to date in clinical trials

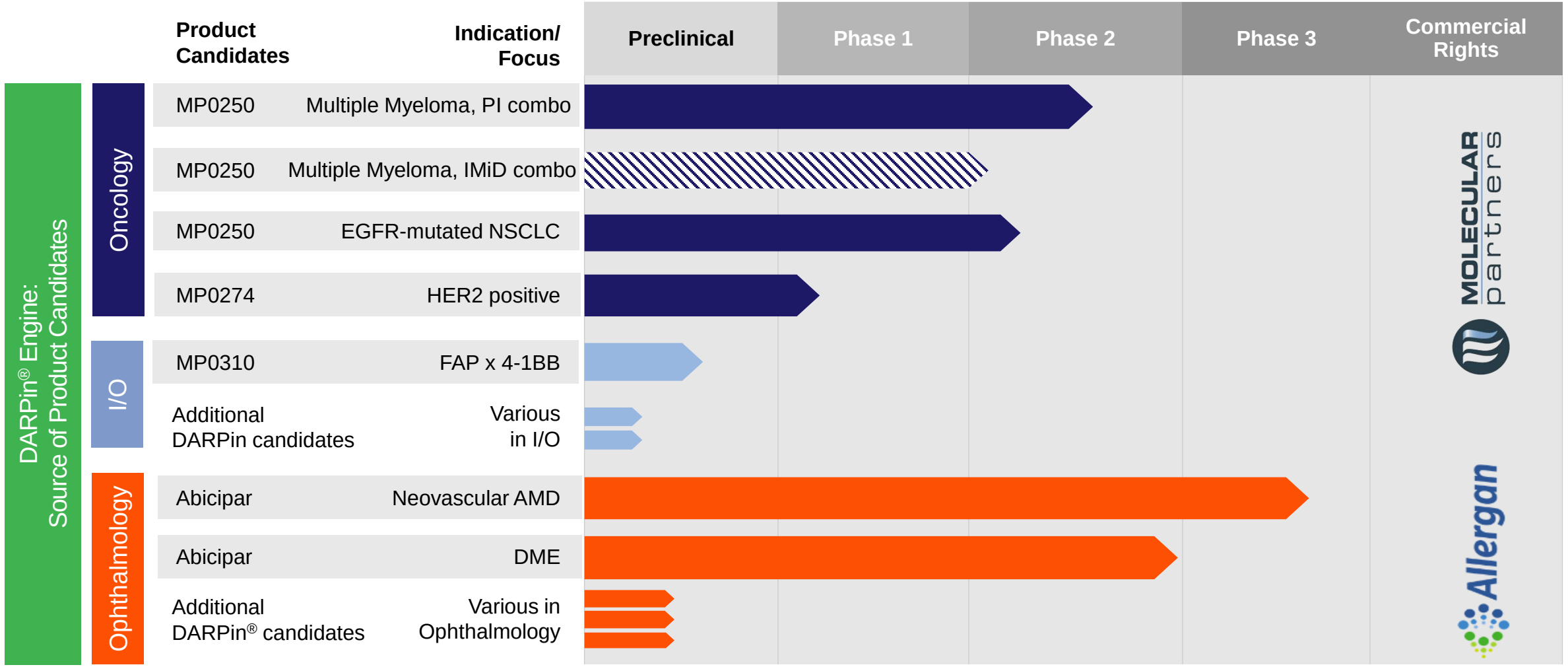
Accelerating Progress

2018 Achievements

- Abicipar phase 3 data
- MP0250 initial activity in MM; NSCLC ongoing
- Second oncology DARPin® in the clinic (MP0274)
- IO DARPin® portfolio progress
  → 10 abstracts at AACR, SITC and other conferences
- Strengthening of oncology team

2019

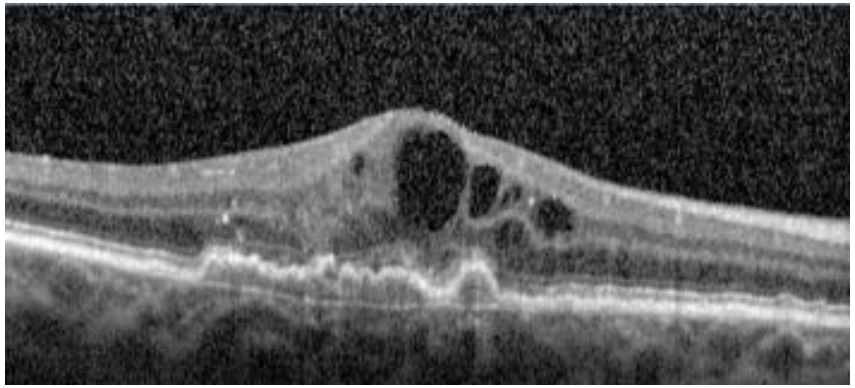
A Balanced and Robust Portfolio



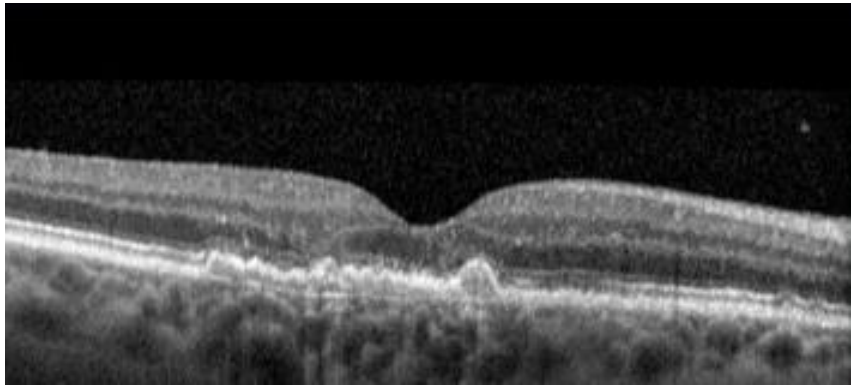
AMD: age-related macular degeneration; DME: diabetic macular edema; NSCLC: non-small cell lung cancer

Our DARPin® Candidate (Abicipar) in Ophthalmology

before treatment



after treatment



Optical coherence tomography

Back of the eye

- Abicipar has the potential to be the first anti-VEGF allowing 12-weekly dosing
- The first-ever pivotal clinical results for a DARPin® Therapeutic Candidate
- Longstanding and fruitful partnership with Allergan, reflecting Molecular Partners' commitment to teamwork and collaboration

Abicipar Phase 3 Data

Yehia Hashad, MD
Vice President and Global Head Clinical Development
Eye care, Medical Aesthetics and Dermatology

December 6th, 2018

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Allergan Cautionary Statements

Forward Looking Statements

This communication includes statements that refer to estimated or anticipated future events and are forward looking statements. We have based our forward looking statements on management's beliefs and assumptions based on information available to our management at the time these statements are made. Such forward looking statements reflect our current perspective of our business, future performance, existing trends and information as of the date of this filing. These include, but are not limited to, our beliefs about future revenue and expense levels and growth rates, prospects related to our strategic initiatives and business strategies, including the integration of, and synergies associated with, strategic acquisitions, express or implied assumptions about government regulatory action or inaction, anticipated product approvals and launches, business initiatives and product development activities, assessments related to clinical trial results, product performance and competitive environment, and anticipated financial performance. Without limiting the generality of the foregoing, words such as "may," "will," "expect," "believe," "anticipate," "plan," "intend," "could," "would," "should," "estimate," "continue," or "pursue," or the negative or other variations thereof or comparable terminology, are intended to identify forward looking statements. 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expectations regarding contingent payments, including regarding litigation and related liabilities, purchase price adjustment or transaction consideration payments; the results of the ongoing business following the completion of the divestiture of Allergan's generics business to Teva; the adverse impact of substantial debt and other financial obligations on the ability to fulfill and/or refinance debt obligations; risks associated with relationships with employees, vendors or key customers as a result of acquisitions of businesses, technologies or products; our compliance with federal and state healthcare laws, including laws related to fraud, abuse, privacy security and others; generic product competition with our branded products; uncertainty associated with the development of commercially successful branded pharmaceutical products; costs and efforts to defend or enforce technology rights, patents or other intellectual property; expiration of patents on our branded products and the potential for increased competition from generic manufacturers; competition between branded and generic products; Allergan's ability to obtain and afford third-party licenses and proprietary technology we need; Allergan's potential infringement of others' proprietary rights; our dependency on third-party service providers and third-party manufacturers and suppliers that in some cases may be the only source of finished products or raw materials that we need; Allergan's competition with certain of our significant customers; the impact of our returns, allowance and chargeback policies on our future revenue; successful compliance with governmental regulations applicable to Allergan's and Allergan's respective third party providers' facilities, products and/or businesses; the difficulty of predicting the timing or outcome of product development efforts and regulatory agency approvals or actions, if any; Allergan's vulnerability to and ability to defend against product liability claims and obtain sufficient or any product liability insurance; Allergan's ability to retain qualified employees and key personnel; the effect of intangible assets and resulting impairment testing and impairment charges on our financial condition; Allergan's ability to obtain additional debt or raise additional equity on terms that are favorable to Allergan; difficulties or delays in manufacturing; our ability to manage environmental liabilities; global economic conditions; Allergan's ability to continue foreign operations in countries that have deteriorating political or diplomatic relationships with the United States; Allergan's ability to continue to maintain global operations and the exposure to the risks and challenges associated with conducting business internationally; risks associated with tax liabilities, or changes in U.S. federal or international tax laws to which we are subject, including the risk that the Internal Revenue Service disagrees that Allergan is a foreign corporation for U.S. federal tax purposes; risks of fluctuations in foreign currency exchange rates; risks associated with cyber-security and vulnerability of our information and employee, customer and business information that Allergan stores digitally; Allergan's ability to maintain internal control over financial reporting; changes in the laws and regulations, affecting among other things, availability, pricing and reimbursement of pharmaceutical products; the highly competitive nature of the pharmaceutical industry; Allergan's ability to successfully navigate consolidation of our distribution network and concentration of our customer base; the difficulty of predicting the timing or outcome of pending or future litigation or government investigations; developments regarding products once they have reached the market; risks related to Allergan's incorporation in Ireland, such as changes in Irish law and such other risks and other uncertainties detailed in Allergan's periodic public filings with the Securities and Exchange Commission, including but not limited to Allergan's Annual Report on Form 10-K for the year ended December 31, 2017, and from time to time in Allergan's other investor communications. 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UNLABELED/UNAPPROVED USES DISCLOSURE:

This presentation includes an investigational compound in development

Allergan R&D footprint

2017 R&D Investment Leading Pipeline

Active projects

Number of studies[1]

Committed R&D colleagues

Core Therapeutic Areas[2]

Countries with active studies

1. Includes Clinical studies Ph1-4, CMO studies (Ph4, IITs, HEOR, Epidemiology). 2. Four Core Therapeutic Areas including: Eye Care; Medical Aesthetics, CNS, Gastrointestinal.

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Allergan R&D includes end to end device and pharma development

Allergan R&D

Research

Early Development*

Late Development*

Regulatory Affairs

Device

Medical Affairs / HEOR / Safety

Project Management

*Includes CMC, Non-Clinical Translational Sciences, Pharm Dev, Biologics, Drug Development Ops, Clin Dev, Skin Medica

Key R&D sites around the world support the organization

Marlow, UK
- Clin Dev
- Drug Dev Operations
- Chief Medical Office
- Reg Affairs

Madison, NJ
- Clin Dev
- Drug Dev Ops
- Chief Medical Office
- Project Mgmt
- Reg Affairs
- Non-Clinical Dev & Translational Sciences
- Research & External Scientific Innovation
- Dedicated CMC Leads/Chem Dev

Tokyo, Japan
- Clin Dev
- Drug Dev Ops
- Chief Medical Office
- Reg Affairs

Liverpool, UK
- Biologics/Pharm Dev
- Reg Affairs

Beijing, Shanghai China
- Clin Dev
- Drug Dev Ops
- Chief Medical Office
- Reg Affairs

Bay Area, CA
Clin Dev
Device R&D
Reg Affairs
Project Mgmt

Markham, Canada
- Chief Medical Office
- Reg Affairs

Bridgewater, NJ
- Device R&D
- Reg Affairs
- Chief Medical Office
- Project Mgmt

Pringy, France
- Device R&D
- Project Mgmt
- Reg Affairs

Singapore
- Drug Dev Ops
- Chief Medical Office
- Reg Affairs

Irvine, CA
- Clin Dev
- Drug Dev Ops
- Chief Medical Office
- Project Mgmt
- Reg Affairs
- Device R&D
- Non-Clinical Dev & Translational Sciences
- Research & External Scientific Innovation
- Pharm Dev/Biologics/Chem Dev

São Paulo, Brazil
- Chief Medical Office
- Reg Affairs

*Note: Sites with fewer HC than 20 not shown, field not shown (e.g. MSLs)

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ALLERGAN EYE CARE: HISTORICAL LEADERSHIP

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ALLERGAN EYE CARE LEADERSHIP GLOBALLY

AGN Ranked in Top 5

> AGN Presence in ~ 73 Countries
> AGN Ranked #1 or #2 in 26 Countries
> Strong Double-Digit Growth in 30+ Countries

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Neovascular age-related macular degeneration (nAMD), pathology and clinical presentation

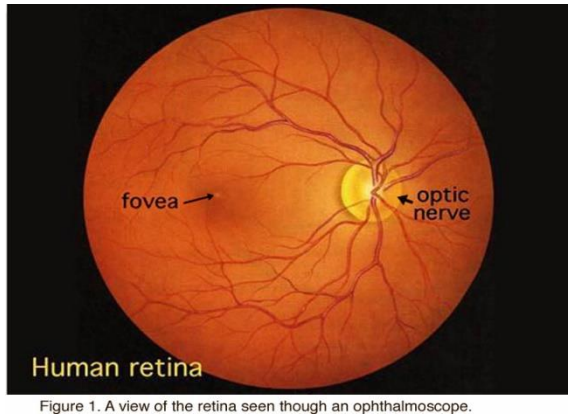
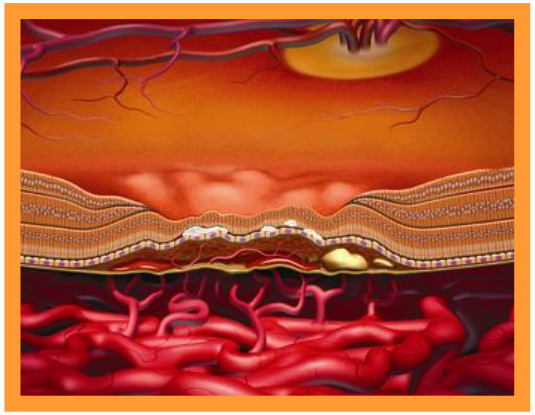
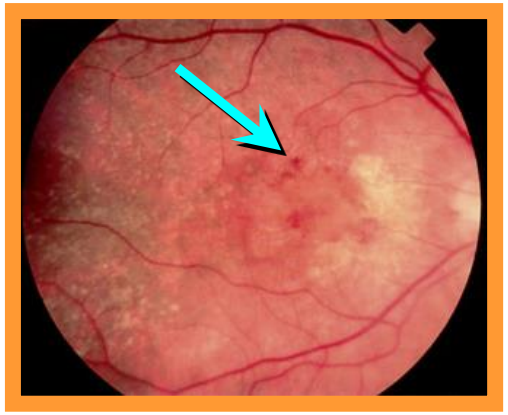


Figure 1. A view of the retina seen though an ophthalmoscope.

Normal Retina

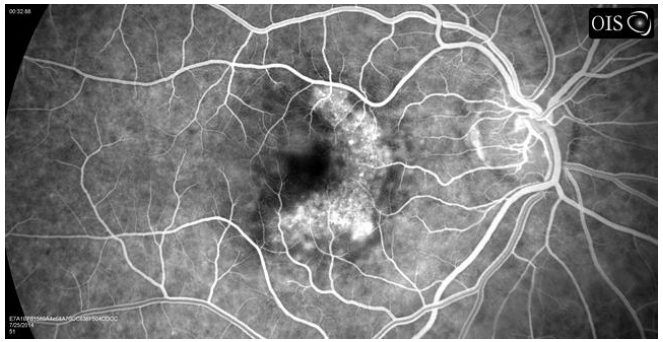


Choroidal Neovascularization



Retinal image in nAMD

VA defect in nAMD



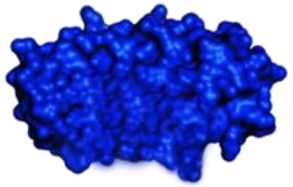
Fluorescein Angiography in nAMD

OCT in nAMD

OCT: Optical Coherence Tomography

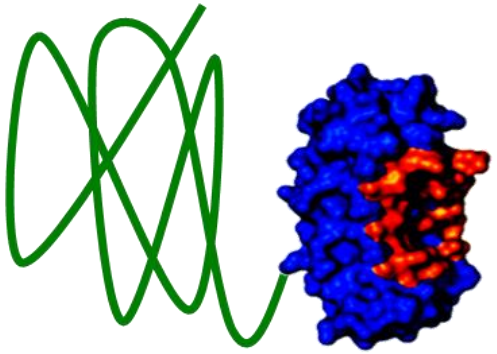
DARPin® Therapeutics and Abicipar Pegol (Abicipar)

The Class

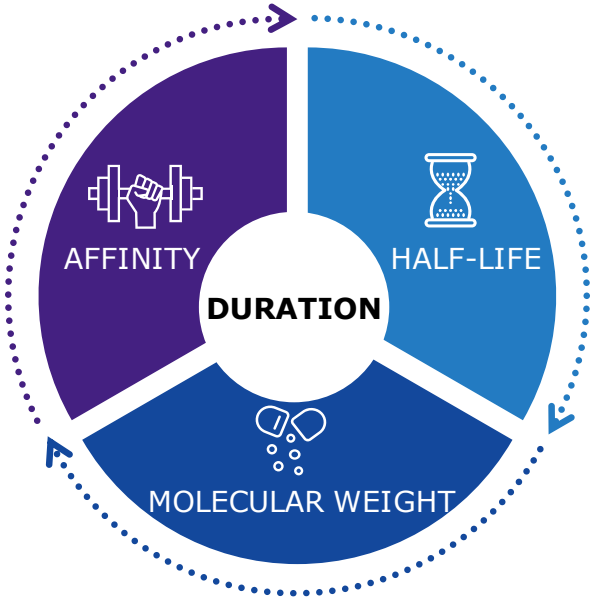


DARPin® Therapeutics

The Compound



Abicipar Pegol



ƒ(DURATION) = AFFINITY * $T_{½}$ * MOLECULAR WEIGHT

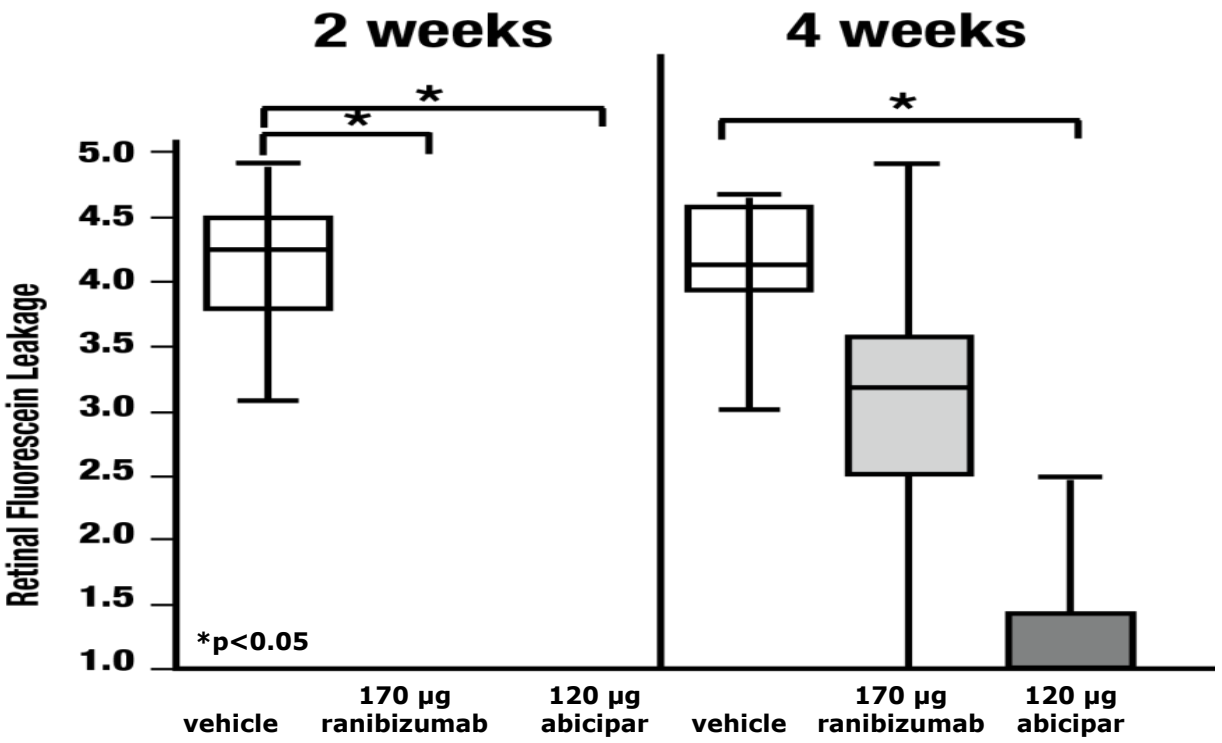
Comparison With Ranibizumab

Characteristic	Abicipar Pegol[a]	Ranibizumab
Molecular weight	34 kDa[b,1]	48 kDa
Binding affinity for VEGF-A (Kd)	0.4 pM[2]	42.5 pM
Half-life (t½) in vitreous in animal studies	4–7 days[1]	3 days[3]

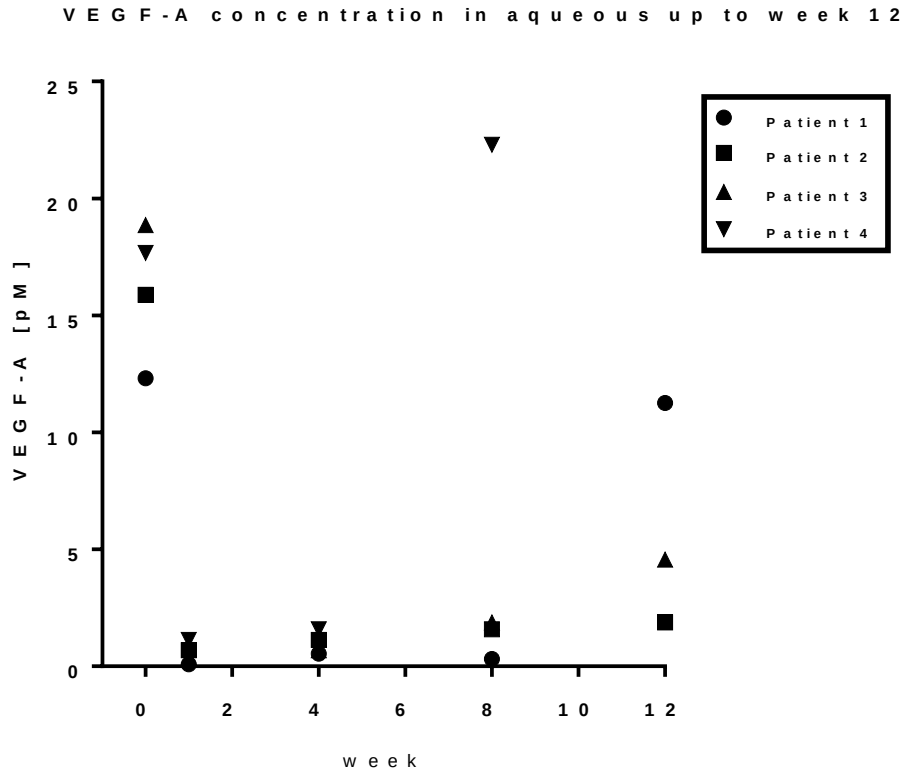
a. Referred to as abicipar in subsequent slides
b. 14 kDa for protein and 20 kDa for PEG portion of the molecule. ; VEGF, vascular endothelial growth factor
1. Data on file, Allergan plc; 2. Souied *et al, Am J Ophthalmoly*. 2014; 158:724-732, 2014; 3. Bakri *et al. Ophthalmology*. 2007; 114:2179-2182.; vascular endothelial growth factor

VEGF Suppression in the Treatment of nAMD

Rabbit Model of VEGF-Induced Vasculopathy



Single 0.4 mg administration in DME patients suppresses VEGF up to 12 weeks



Source: Rodrigues et al manuscript submitted

Source: Campochiaro et al., 2013

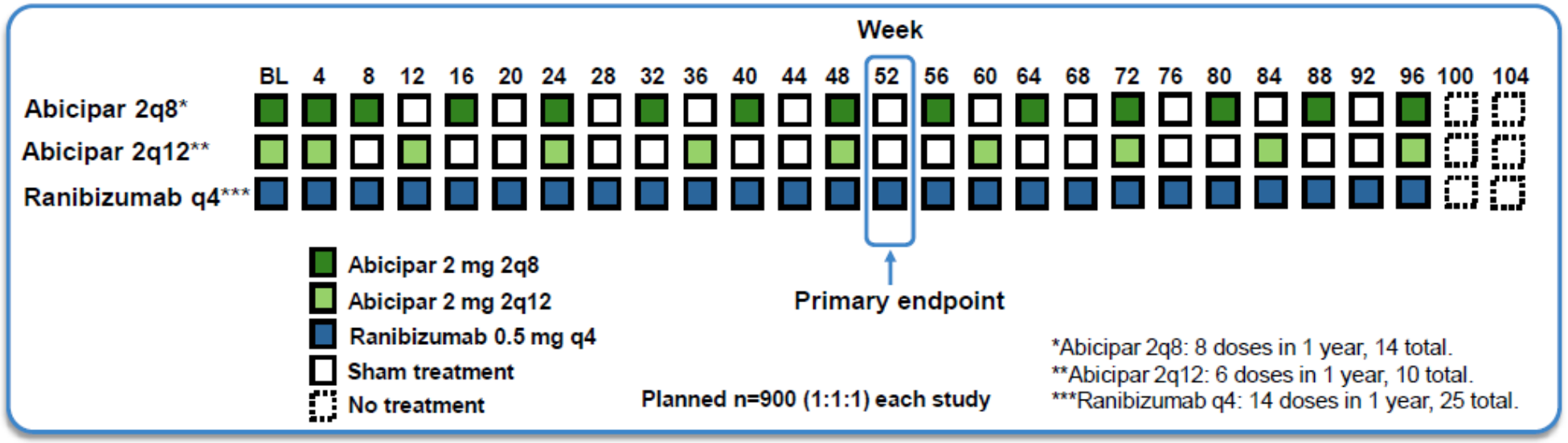
Phase 3 SEQUOIA and CEDAR Study Design

Two randomized, double-masked, parallel-group, clinical trials with identical protocols

Objective: To assess the safety and efficacy of abicipar compared with ranibizumab in treatment-naïve patients with nAMD

Primary endpoint: Proportion of patients with stable vision (loss of <15 ETDRS letters compared with baseline) at Week 52

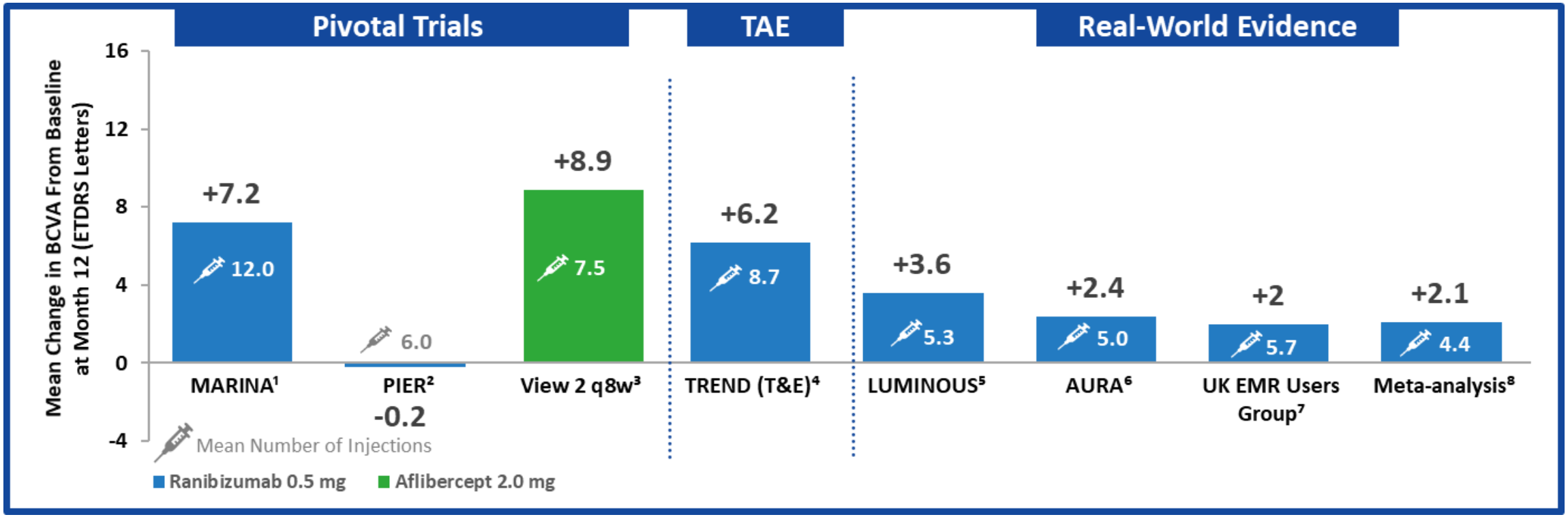
Secondary endpoints: Mean change from baseline in ETDRS BCVA, mean change from baseline in CRT, and proportion of patients with ≥15-letter gain at Week 52



BCVA, best-corrected visual acuity; CRT, central retinal thickness; ETDRS, Early Treatment Diabetic Retinopathy Study; nAMD, neovascular age-related macular degeneration
ClinicalTrials.gov Identifiers: NCT02462928 and NCT02462486

Clinical Trial Versus Real World Treatment Practice

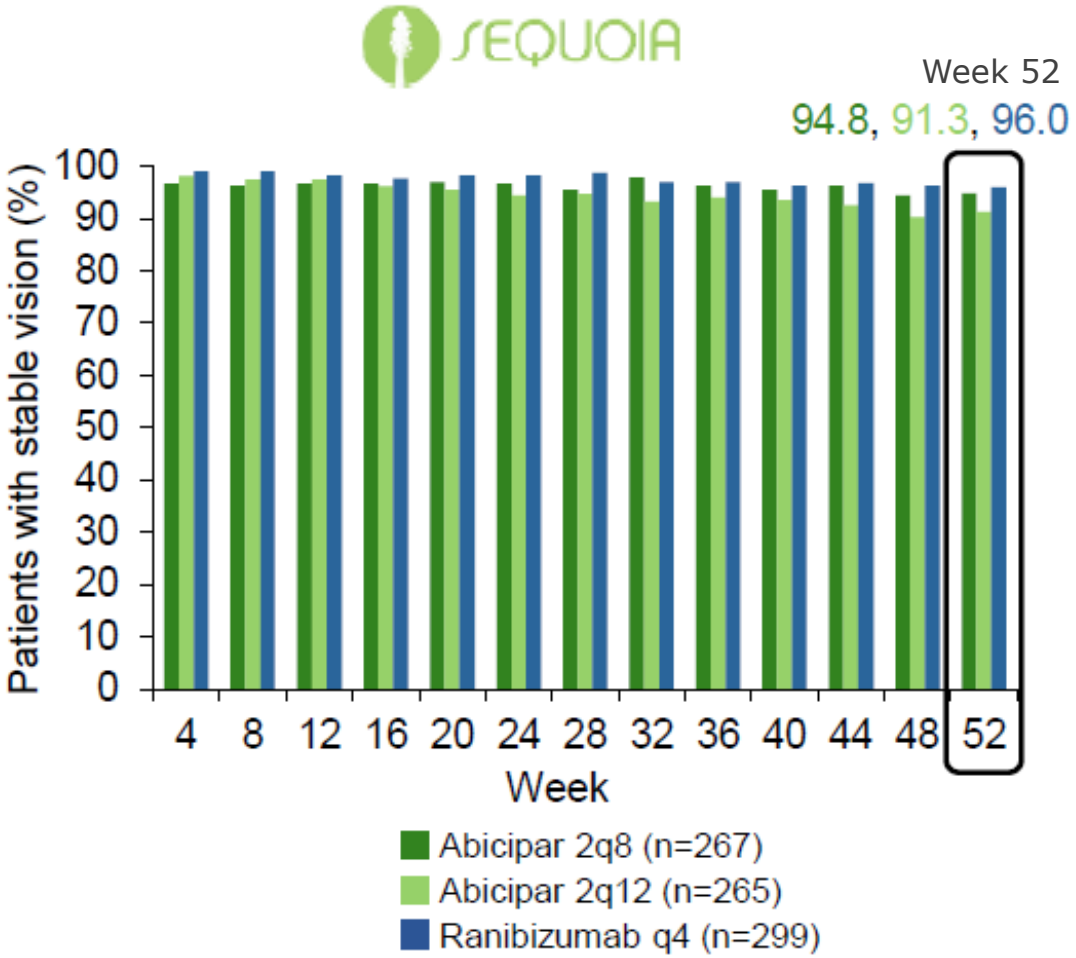
- **Fixed monthly treatment** consistent outcomes but not used in real life practice
- **Extend injection interval to every 12 weeks** attempted to address injection and visit burden but failed with ranibizumab
- **Extend injection interval to 8 weeks** consistent outcomes but requires every 2 months injections and patient visits
- **Treat and Extend (TAE):** can lessen the burden but requires patient monitoring visits and can result in suboptimal vision outcomes

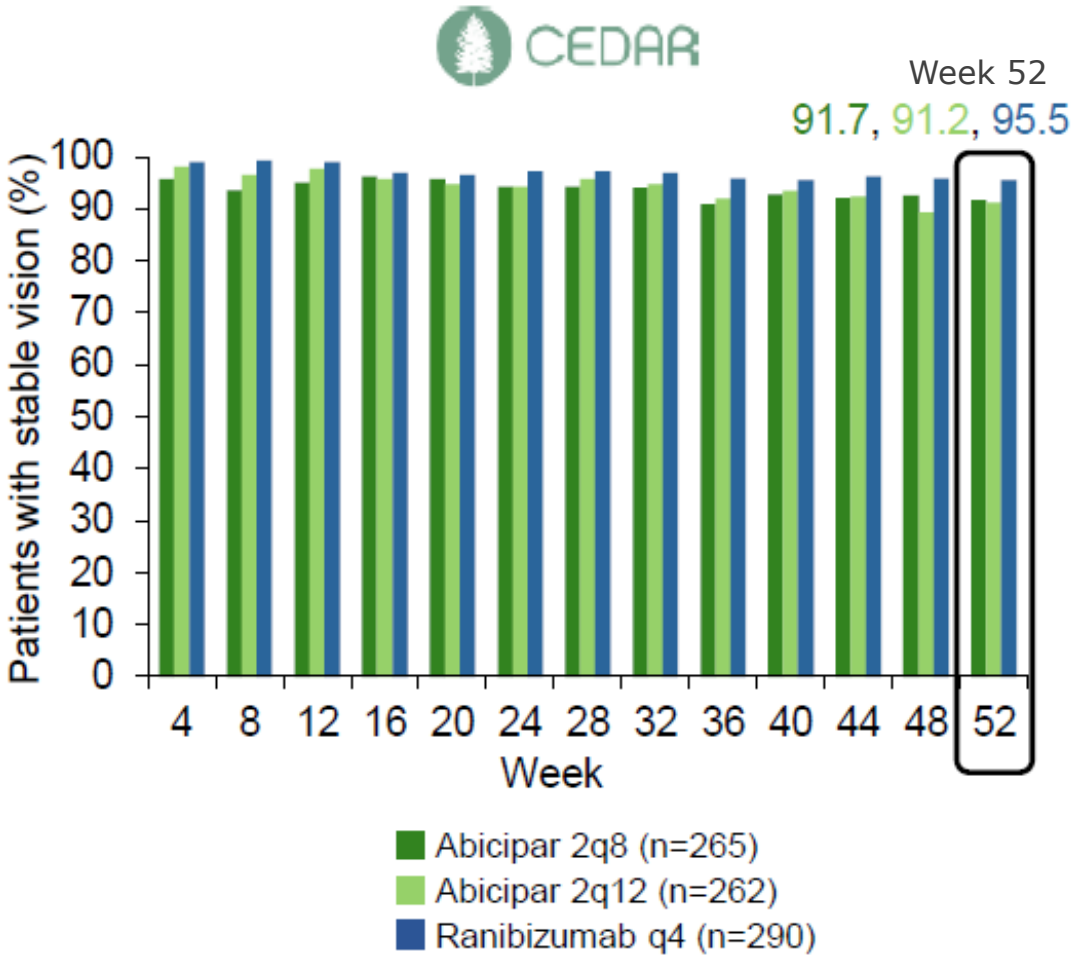


[a]Ranibizumab monthly and aflibercept bimonthly dosing unless stated. BCVA, best-corrected visual acuity; ETDRS, Early Treatment Diabetic Retinopathy Study; FRB, Fight Retinal Blindness; PRN, q4w/q8w, 4-/8-week dosing interval; T&E, treat-and-extend; VA, visual acuity.oivc

1. Rosenfeld et al. *N Engl J Med*. 2006; **2.** Regillo et al. *AJO*. 2008; **3.** Heier et al. *Ophthalmology*. 2012; **4.** Silva et al. *Ophthalmology*. 2018; **5.** Souied et al. *Acta Ophthalmologica* 2017. **6.** Holz et al. *Br J Ophthalmol.* 2015; **7.** Writing Committee for the UK Age-Related Macular Degeneration EMR Users Group, *Ophthalmology*. 2014. **8.** Kim et al. *Retina*. 2016.

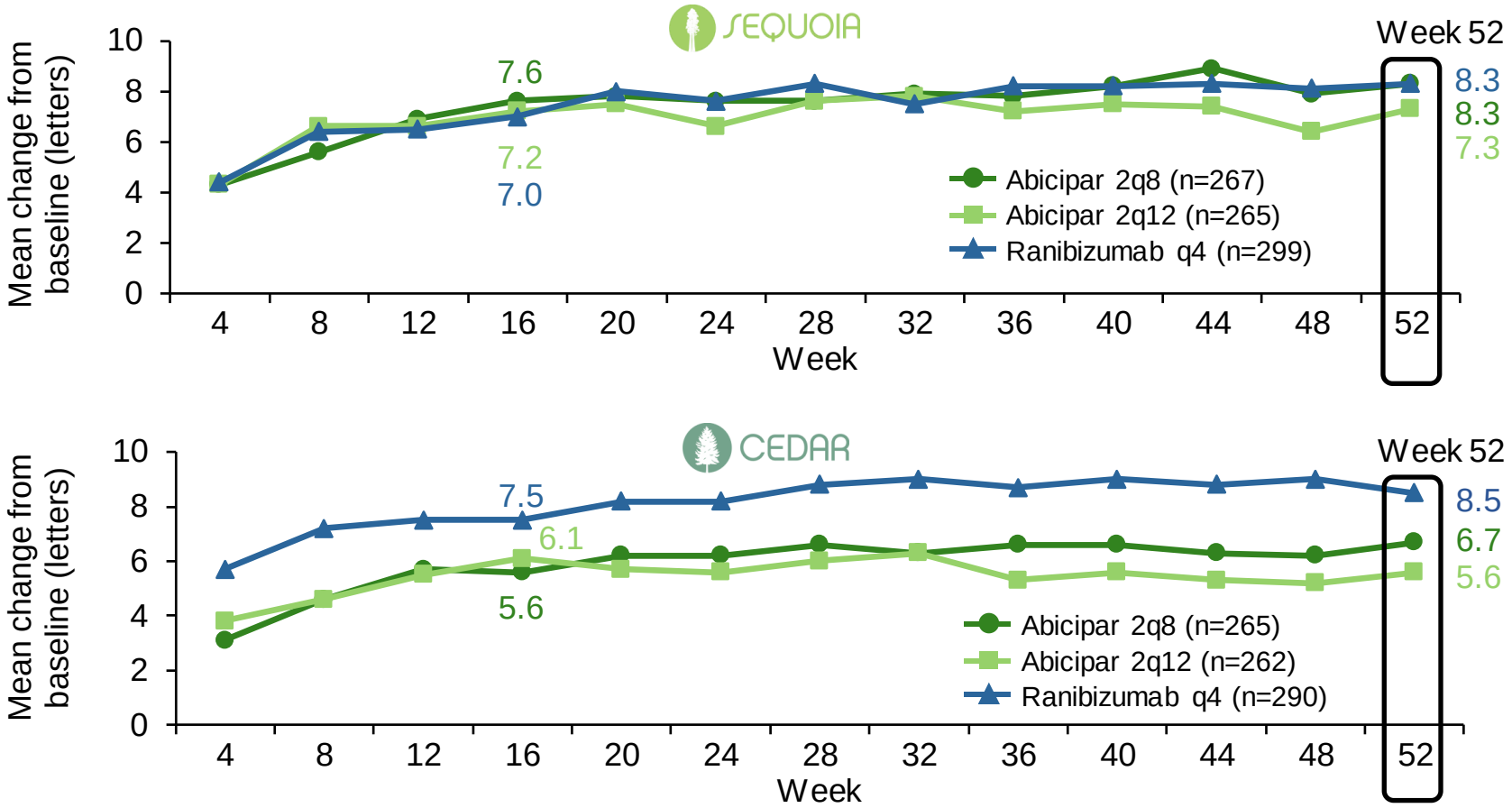
Primary Endpoint: STABLE VISION Abicipar Q8 and Q12 Non-Inferior to Ranibizumab Q4 with Fewer Injections





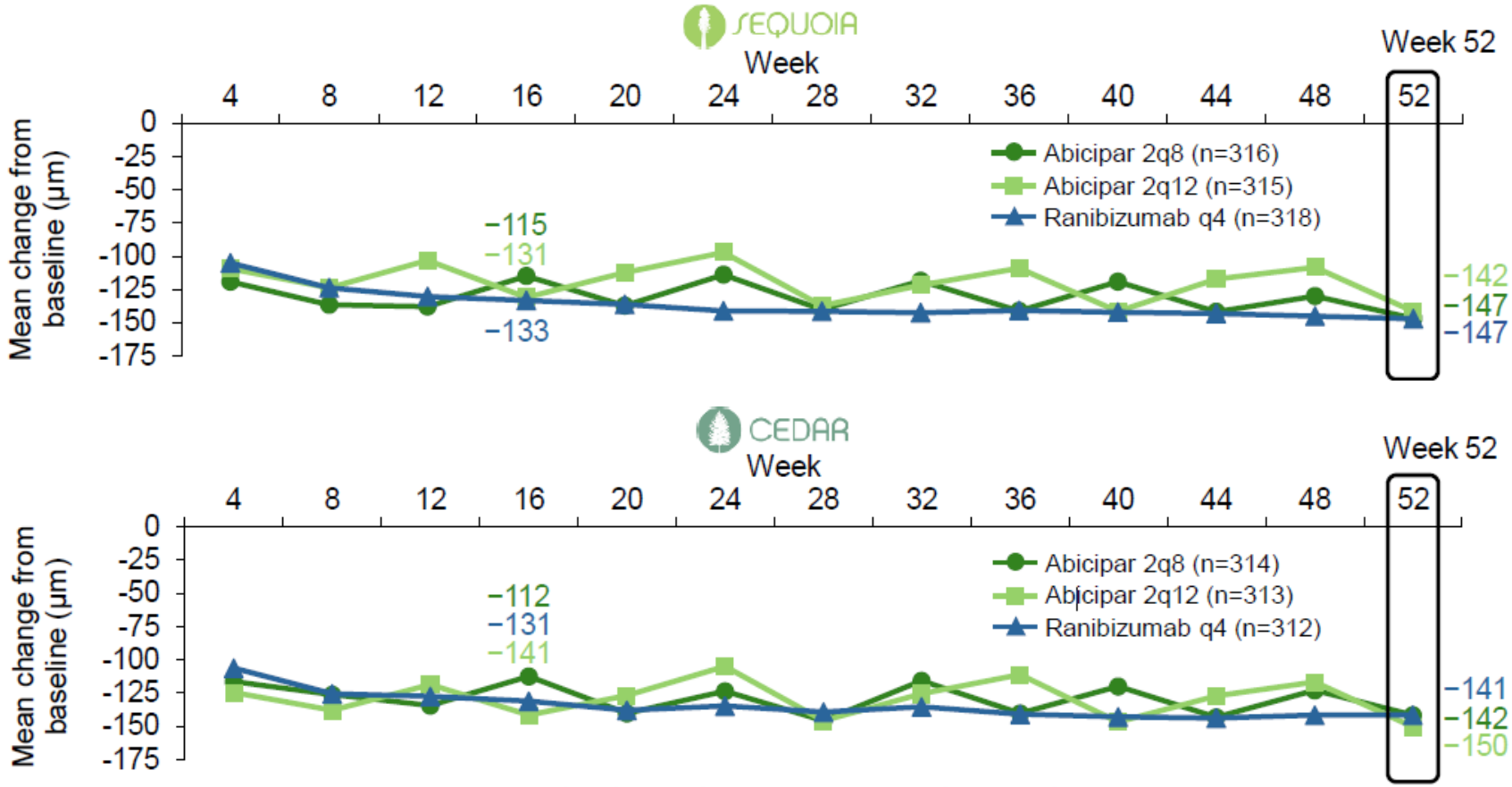
PP=Per protocol; BCVA=Best Corrected Visual Acuity; BL= baseline

Abicipar Q8 and Q12 in SEQUOIA and Q8 in CEDAR Non-Inferior to Ranibizumab for Key Secondary Endpoint: Mean Change in BCVA From Baseline



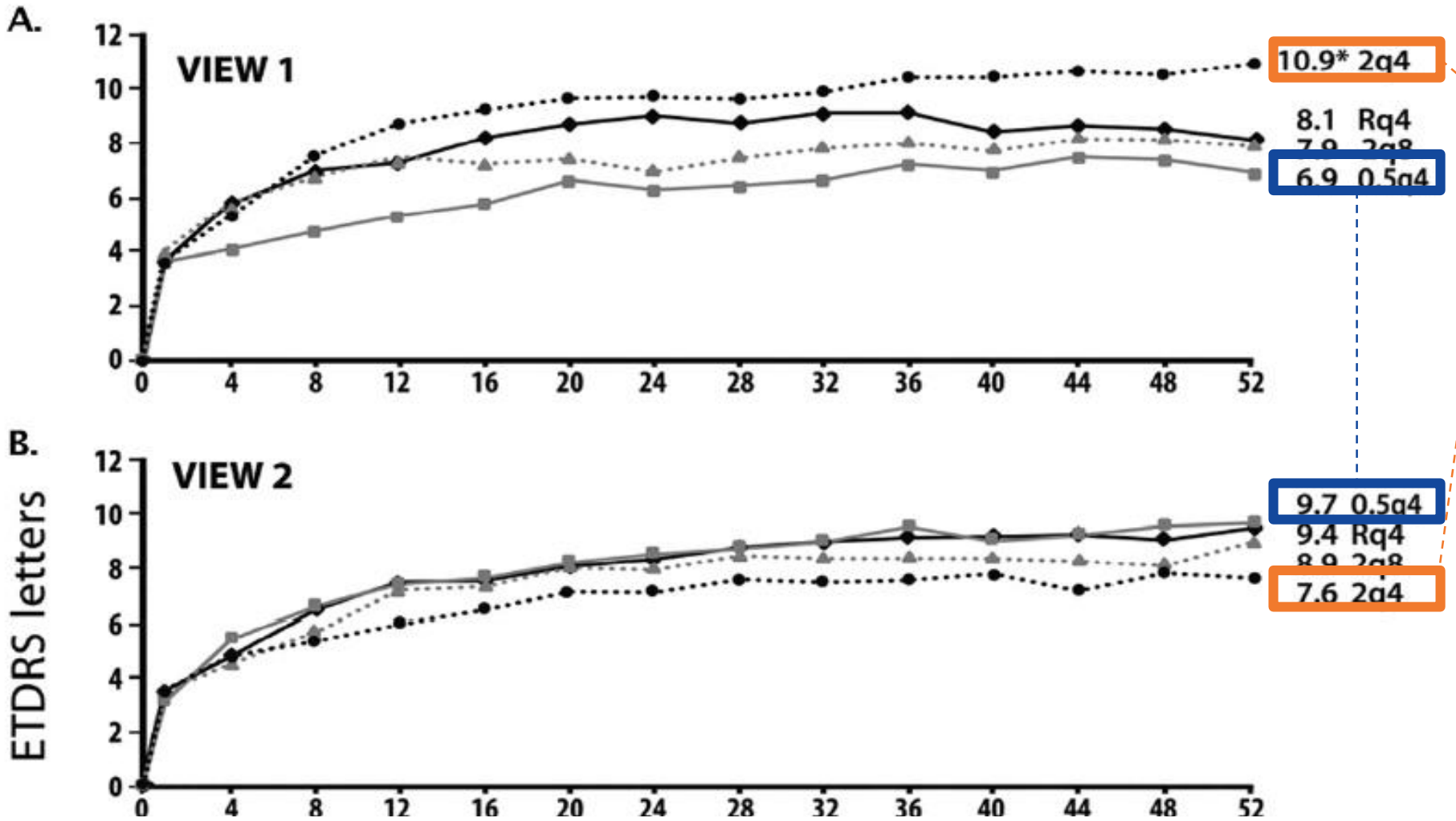
BCVA vision gain after initial loading doses maintained through week 52

Mean Change in CRT From Baseline was Similar in the Abicipar Q8 and Q12 Groups and the Ranibizumab Q4 Group



CRT improvement after initial loading doses maintained through week 52

Between Study Differences in Effect Size for the Same Therapeutic Regimen are Common



Aflibercept 2Q4 showed 3.3 letter difference

Aflibercept 0.5Q4 showed 2.8 letter difference

Source: Heier et al., 2012

Treatment-Emergent Adverse Events: Overall Summary (SEQUOIA and CEDAR)

Adverse event, n (%)	Abicipar 2q8 n=625	Abicipar 2q12 n=626	Ranibizumab q4 n=625
TEAE	475 (76.0)	498 (79.6)	460 (73.6)
Ocular	341 (54.6)	359 (57.3)	305 (48.8)
Nonocular	326 (52.2)	365 (58.3)	371 (59.4)
Treatment-related TEAE	208 (33.3)	236 (37.7)	157 (25.1)
Ocular	203 (32.5)	233 (37.2)	152 (24.3)
Study-drug–related	105 (16.8)	128 (20.4)	28 (4.5)
Study-procedure–related	142 (22.7)	168 (26.8)	143 (22.9)
Nonocular	13 (2.1)	14 (2.2)	15 (2.4)
Serious TEAE	125 (20.0)	131 (20.9)	101 (16.2)
Death	11 (1.8)	5 (0.8)	10 (1.6)

TEAE: treatment-emergent adverse event

TEAEs of Special Interest in the Study Eye: Intraocular Inflammation (SEQUOIA and CEDAR)

Preferred term, n (%)	Abicipar 2q8 n=625	Abicipar 2q12 n=626	Ranibizumab q4 n=625
Overall	96 (15.4)	96 (15.3)	2 (0.3)
Uveitis	34 (5.4)	33 (5.3)	0
Vitritis	27 (4.3)	27 (4.3)	0
Iridocyclitis	22 (3.5)	29 (4.6)	1 (0.2)
Retinal vasculitis	12 (1.9)	10 (1.6)	0
Iritis	16 (2.6)	7 (1.1)	0
Keratic precipitates	7 (1.1)	13 (2.1)	0
Vitreous haze	5 (0.8)	8 (1.3)	0
Vitreal cells	6 (1.0)	2 (0.3)	1 (0.2)
Endophthalmitis	7 (1.1)	8 (1.3)	1 (0.2)
Non-infectious endophthalmitis	1 (0.3)	0	0

All intraocular inflammation TEAEs reported in the study eye of ≥1% of patients in any treatment arm are listed

TEAE: treatment-emergent adverse event

Adverse Events of Intraocular Inflammation by Maximum Severity (SEQUOIA and CEDAR)

IOI AE Severity, n (%)	Abicipar 2q8 n=625	Abicipar 2q12 n=626	Ranibizumab q4 n=625
Overall IOI rate	96 (15.4)	96 (15.3)	2 (0.3)
Mild	21 (3.4)	23 (3.7)	2 (0.3)
Moderate	52 (8.3)	53 (8.5)	0
Severe	23 (3.7)	20 (3.2)	0

Most patients with IOI in the abicipar arms (82.3% and 89.6%, respectively) were treated with topical corticosteroid

One patient had missing data; AE: adverse event; IOL: intraocular inflammation

Conclusions - Abicipar has the Potential to be the First Fixed 12 Week anti-VEGF

√ SEQUOIA and CEDAR were the first successful demonstration of maintaining vision of 2q12 as a fixed treatment regimen compared to monthly ranibizumab.
- 2q12 and 2q8 met the prespecified criteria for noninferiority to monthly ranibizumab for the primary endpoint at Week 52
- >91% of abicipar patients had stable vision on both dosing regimens

√ Secondary endpoints from both SEQUOIA and CEDAR at Q8 and Q12 dosing regimen support primary endpoint results
- BCVA and CRT improvements after initial doses were maintained to week 52

√ Overall incidence of treatment-emergent adverse events was comparable among the 3 treatment arms
- Abicipar-treated patients had higher risk of developing IOI than ranibizumab-treated patients
- Majority of the cases were mild to moderate and were treated with topical corticosteroid

✓ Allergan plans to file abicipar with the FDA in 1H 2019 pending a pre-BLA meeting
✓ Allergan continues to expect results from MAPLE trial using its further optimized formulation in 1H 2019

Molecular Partners Research

Focus on Oncology

MOLECULAR partners

DARPin® Strategy in Oncology

Antigen-presenting cells, T cells

PRIME & ACTIVATE

Localized Immune Modulators

T cells

ENGAGE

Cytotoxic Immune Cells

T cells

UNBLOCK

Checkpoint Approaches

Tumor cells

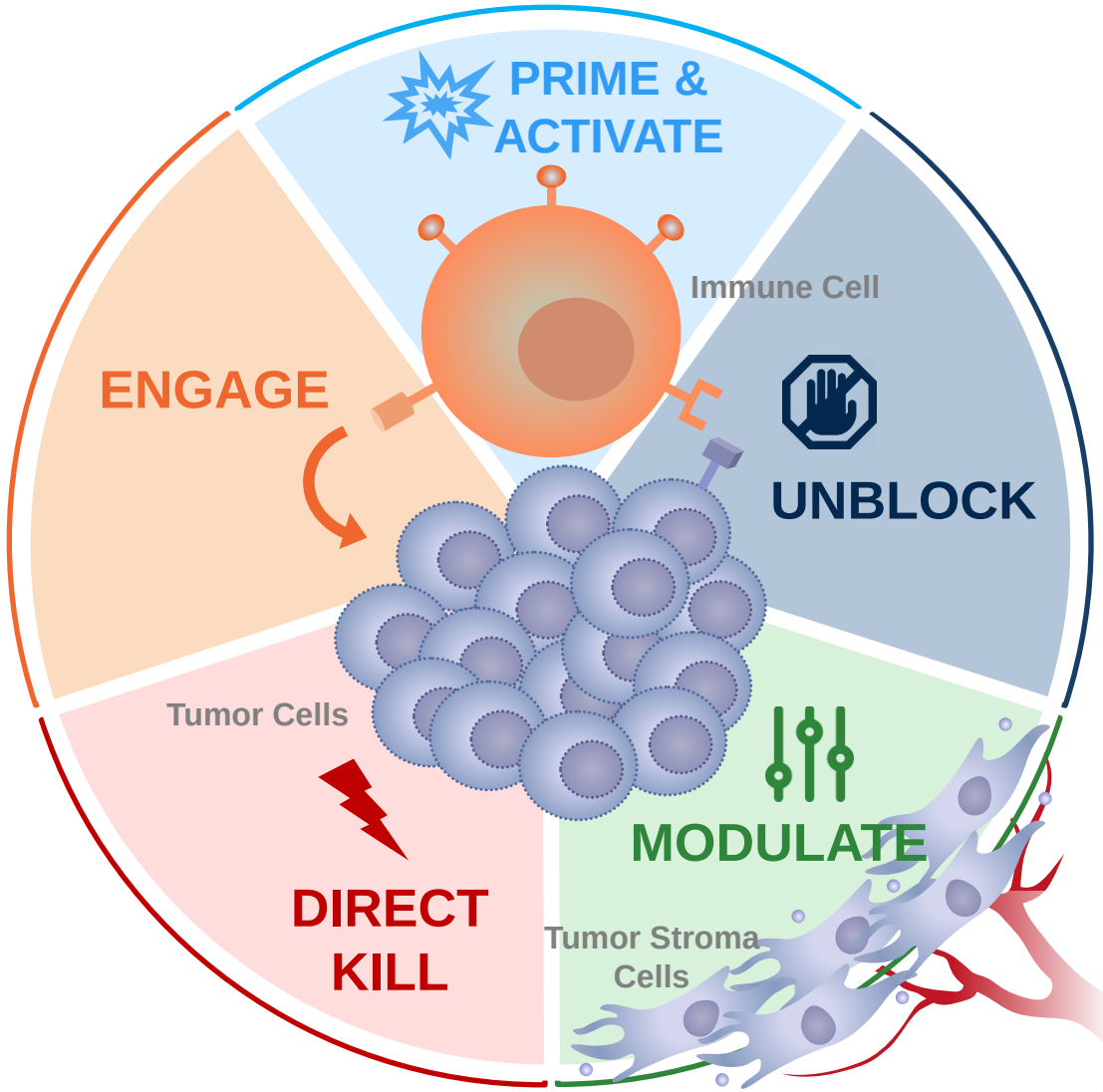
DIRECT KILL

Direct Tumor Cell Killing

Tumor / Stromal cell interactions

MODULATE

Tumor Microenvironment Modulators



MOLECULAR partners

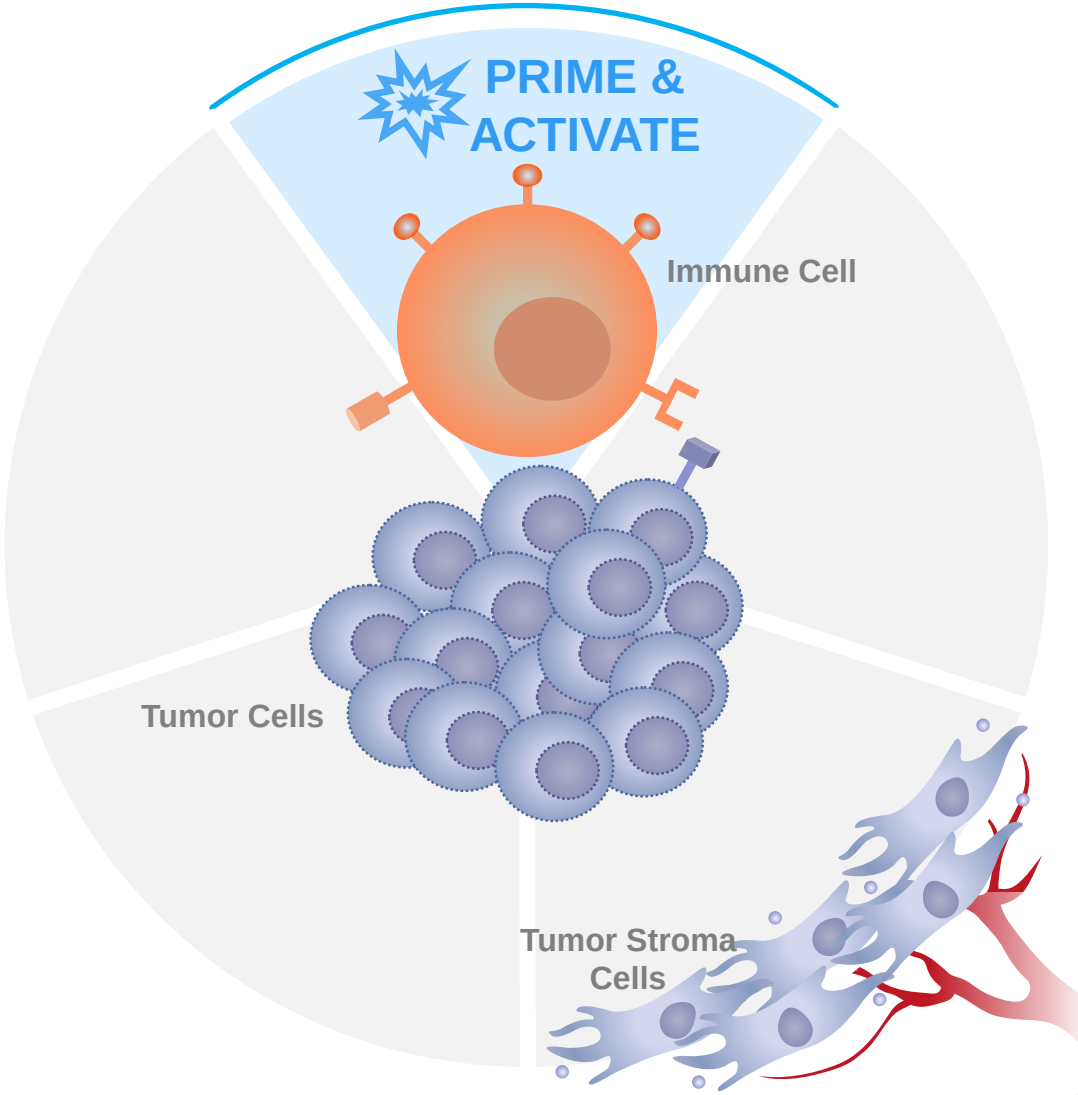
Today's Focus: Localized Immune Modulators

Antigen-presenting cells, T cells

PRIME & ACTIVATE

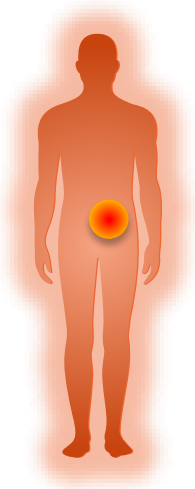
Localized Immune Modulators

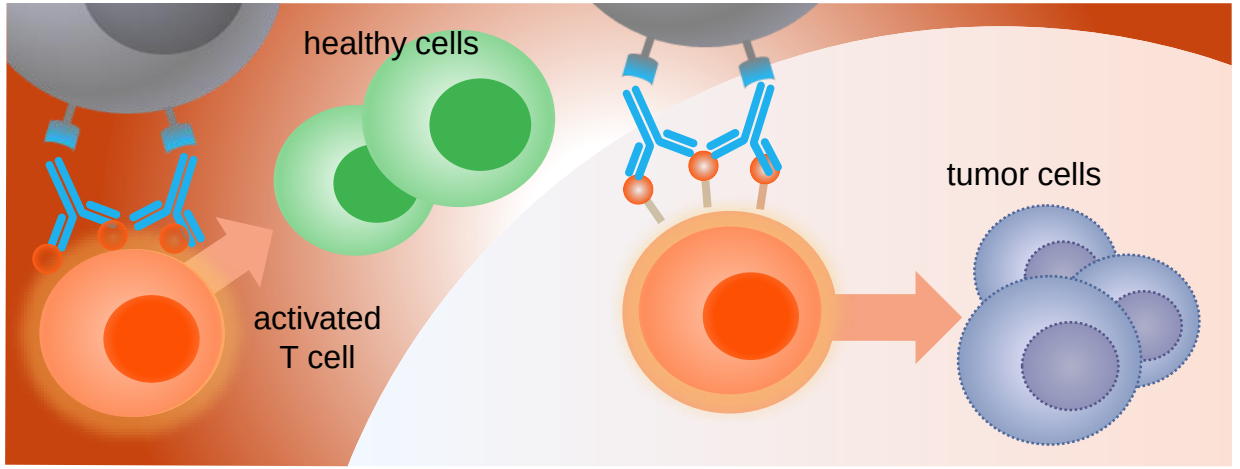
- MP0310: FAP x 4-1BB
- FAP x CD40



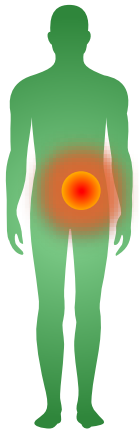
Our Vision: Expand the Therapeutic Window Through Tumor-Localized Immune Modulation

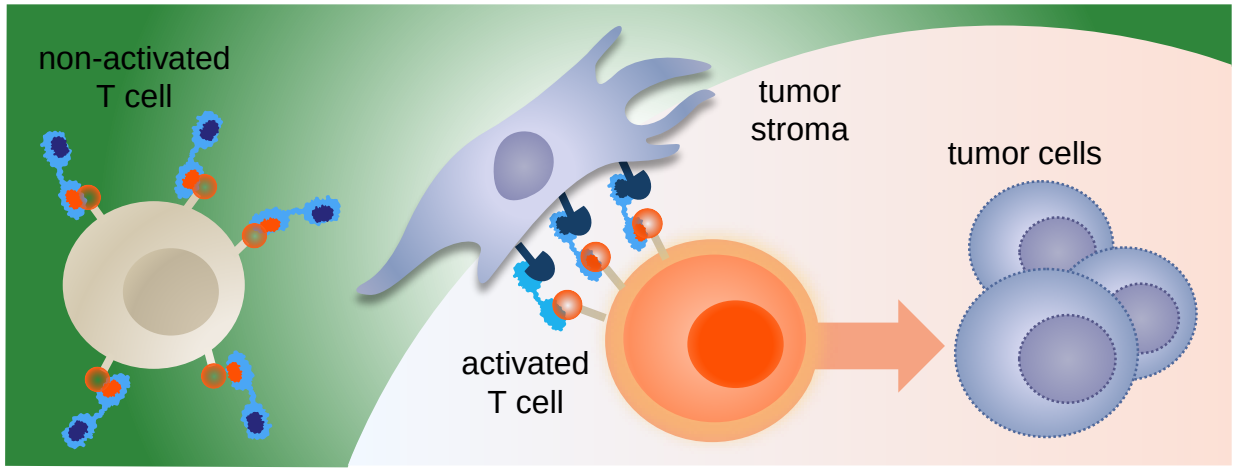
Many current IO therapeutics that activate the immune system throughout the body show impressive activity but also systemic toxicities





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





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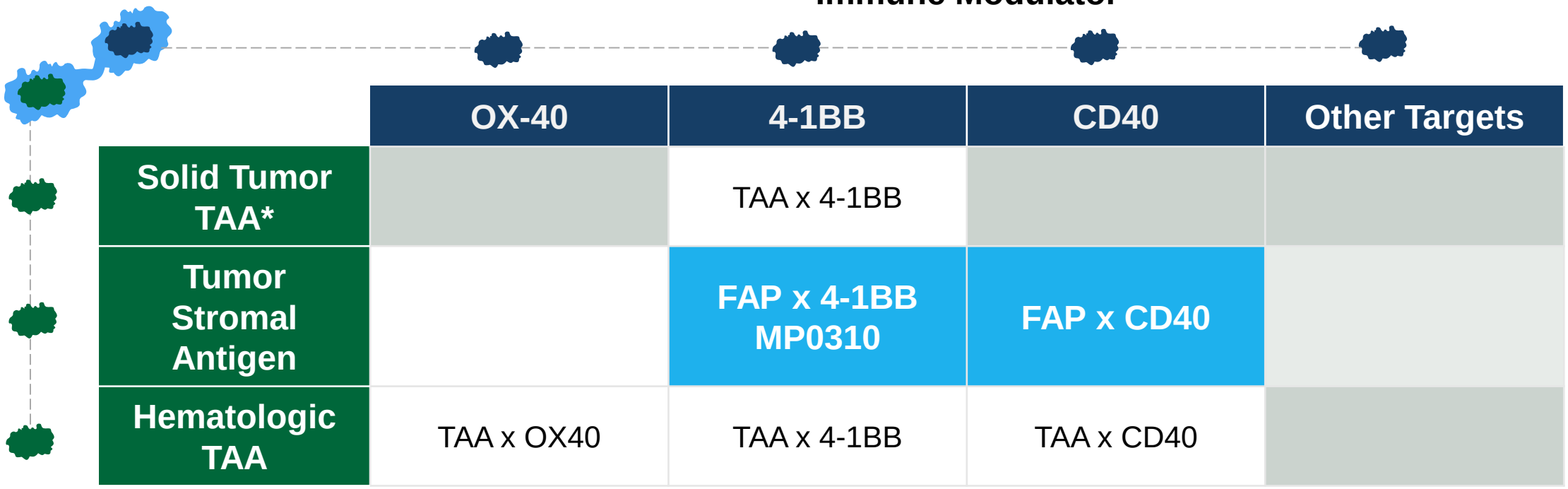
DARPin® Toolbox: Tumor-Localized Immune Modulators

Tumor-localized immune modulators – overcoming the limitation of systemic side effects

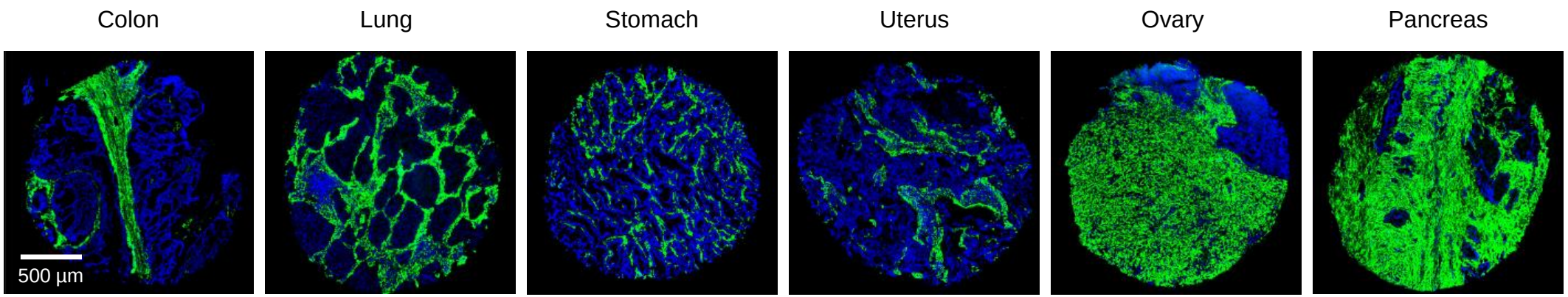


*Tumor-Associated Antigen (TAA)

FAP-Directed IO Therapeutics

- Fibroblast Activation Protein (FAP)
  - Selectively expressed on carcinoma-associated fibroblasts (CAFs) present in many solid tumors
  - Limited expression on cells of normal tissues
  - Expression unlikely to be lost as a consequence of therapy
- FAP can be used to localize multiple IO therapeutics

FAP expression in human tumor sections



Human FAP, DAPI

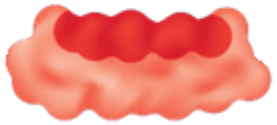
MP0310 (FAP x 4-1BB): Activating T cells in the Tumor

MP0310 DARPin® modules

Immune modulator

4-1BB DARPin®

Localizer



FAP DARPin®

Half-life extender

HSA DARPin®

Illustrative graphic

- 4-1BB is an inducible co-stimulatory receptor expressed on T cells and NK cells
- Agonism of 4-1BB results in increased survival, cytokine secretion, and enhanced effector function
- Agonist anti-4-1BB antibodies have shown clinical activity with substantial liver toxicity

- MP0310 is a multi-specific DARPin® designed to improve the efficacy and safety of 4-1BB co-stimulation via:
  - **Tumor-localized binding to FAP**
  - **Clustering of 4-1BB via FAP binding to maximize 4-1BB agonism**
- Fully owned by Molecular Partners – IP protection at least until 2038

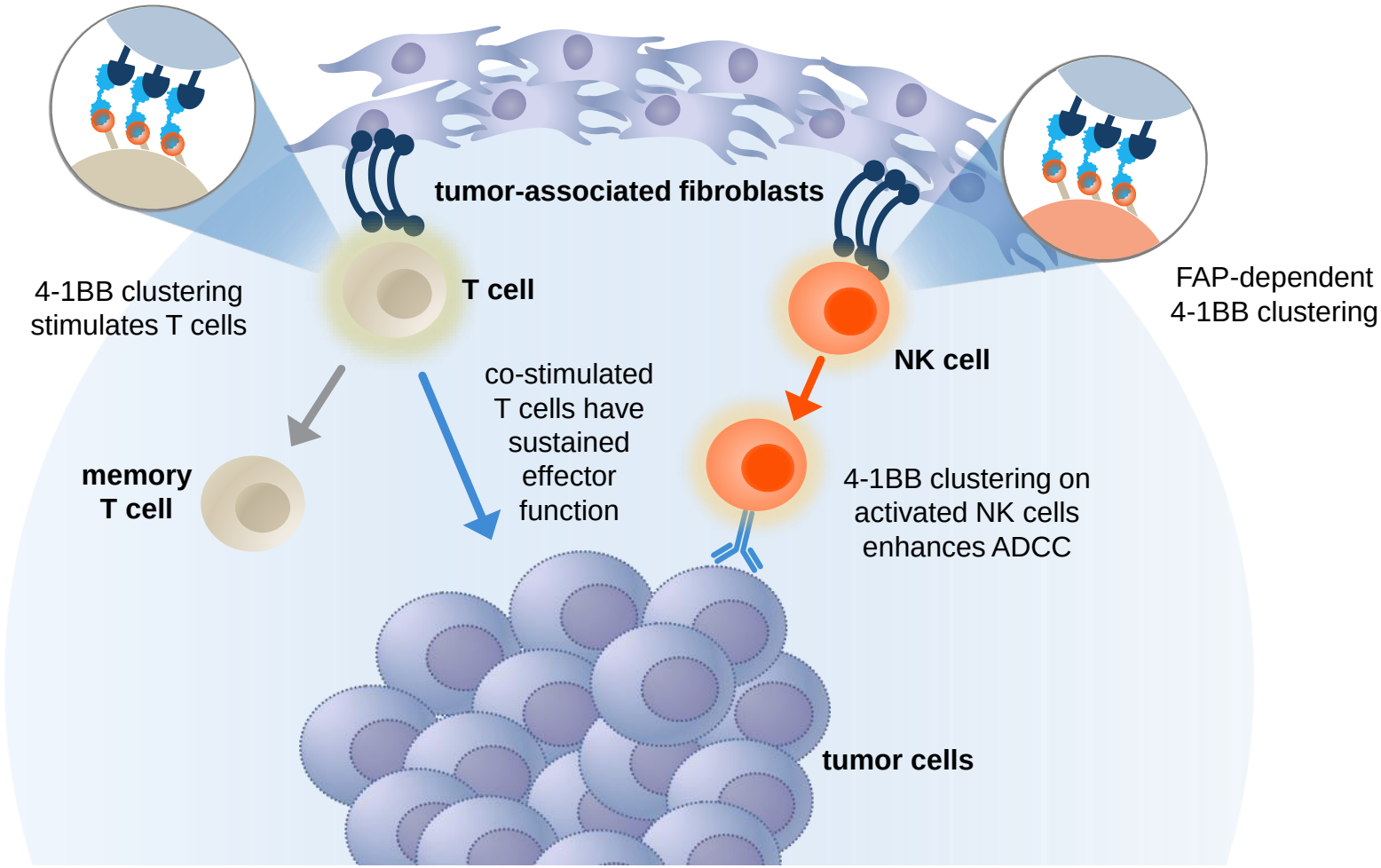
HSA, human serum albumin.

4-1BB: Co-Stimulating T Cells for a Sustained Effect

1. Clustering of 4-1BB on T cells leads to increased survival and effector function as well as T cell memory
2. Clustering on Natural Killer (NK) cells enhances antibody-dependent cellular cytotoxicity (ADCC)
3. Activated T cells and NK cells attack tumor

Thus, MP0310 should combine effectively with:

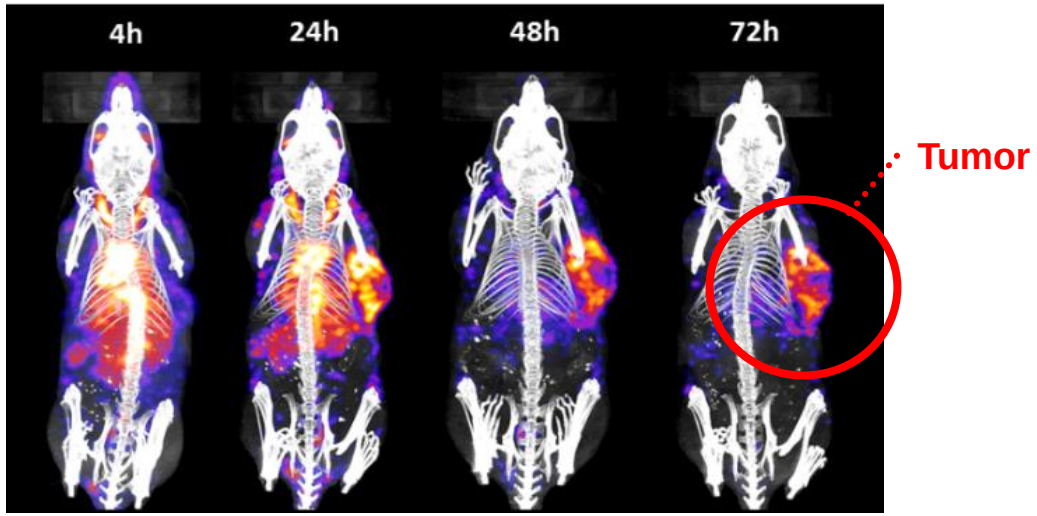
- T cell-targeted therapies (checkpoint inhibitors, bispecific T cell engagers)
- ADCC-mediating antibodies



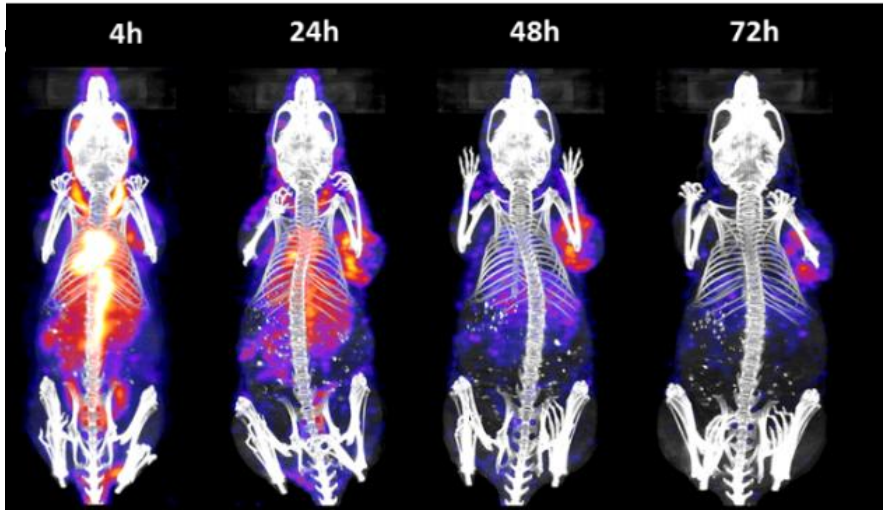
FAP-Mediated Tumor Accumulation of MP0310

MP0310 selectively localizes and is retained in FAP-expressing tumors

mFAP x 4-1BB

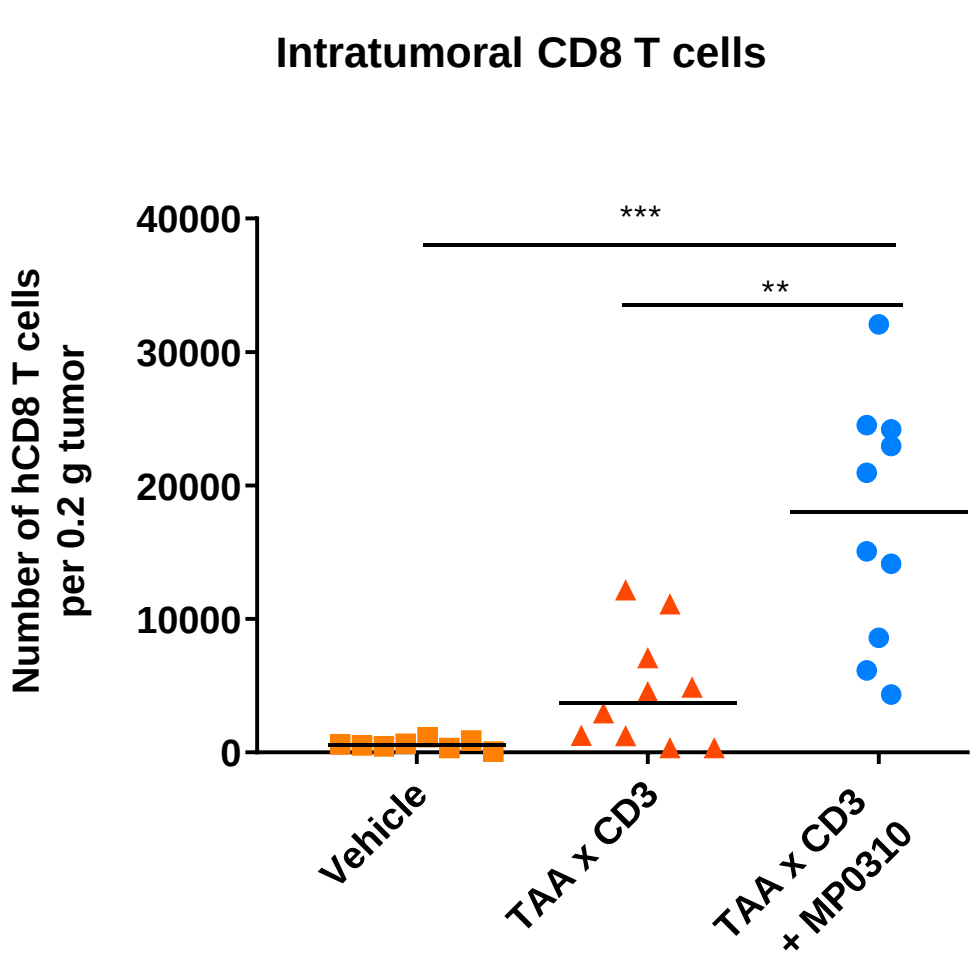


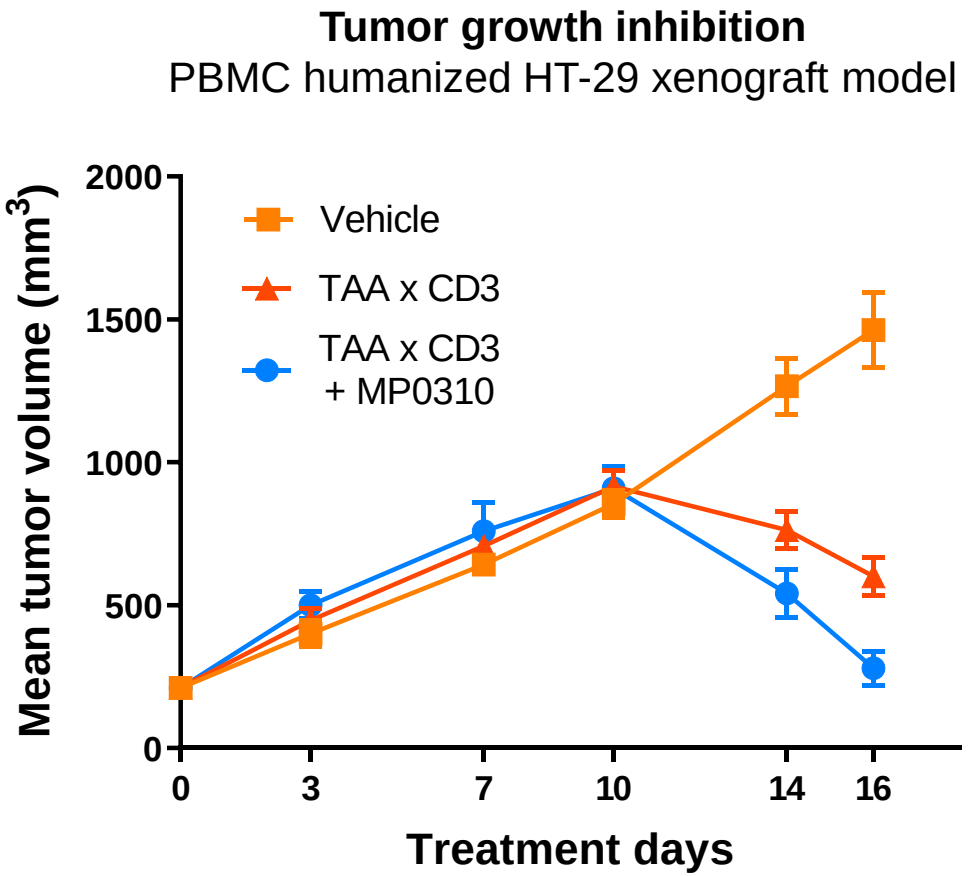
non-FAP x 4-1BB



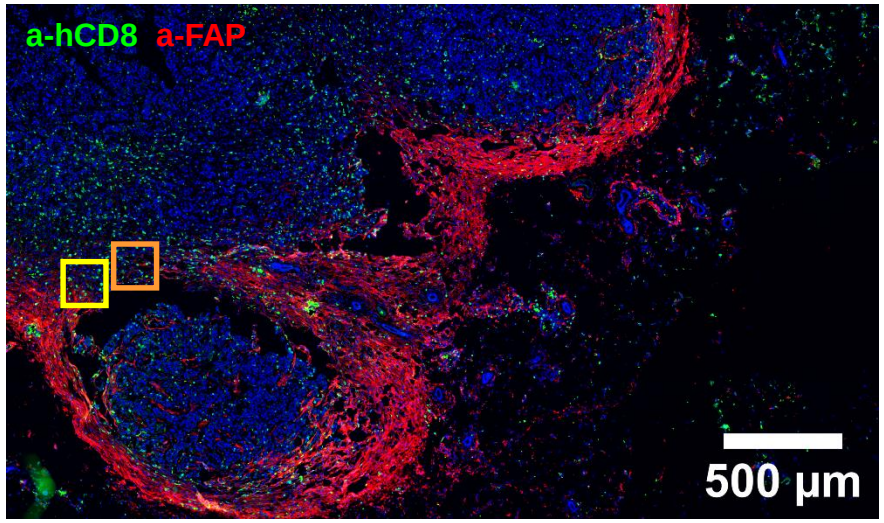
HT-29 tumor-implanted NSG mice

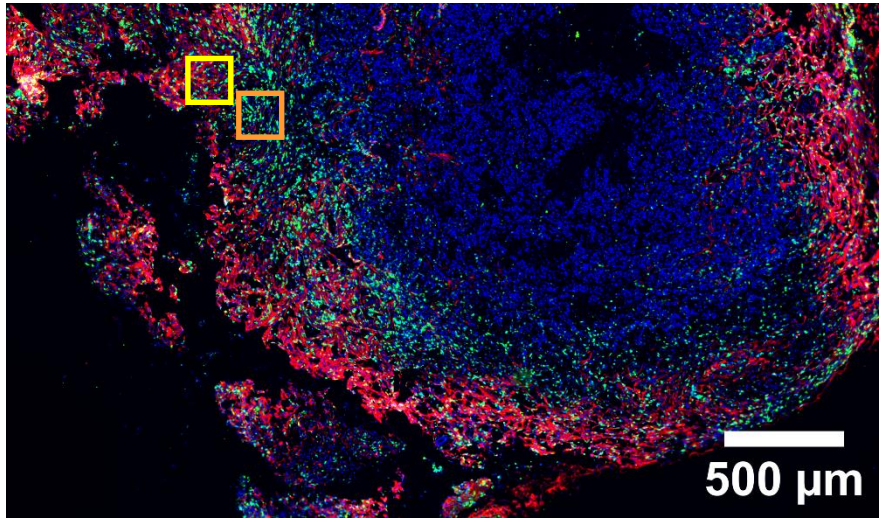
Combined Therapy with MP0310 and a TAA x CD3 Bi-Specific Results in a Significant Increase of Intratumoral CD8+ T Cells





MP0310 Induces CD8+ T Cell Accumulation

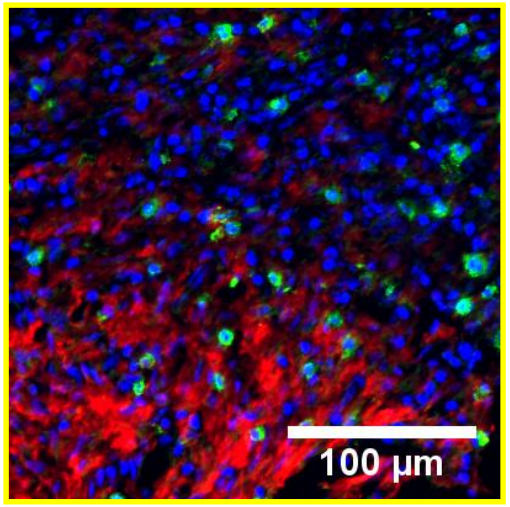




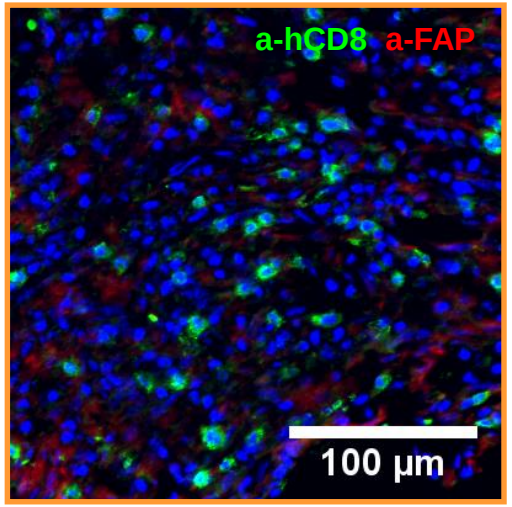
HT-29 tumor implanted NSG mice

TAA x CD3
0.05mg/kg

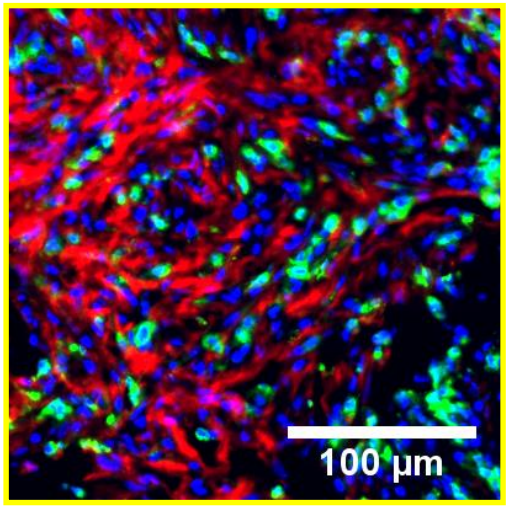
TAA x CD3
0.05mg/kg
+
mFAP x 4-1BB
1.6mg/kg

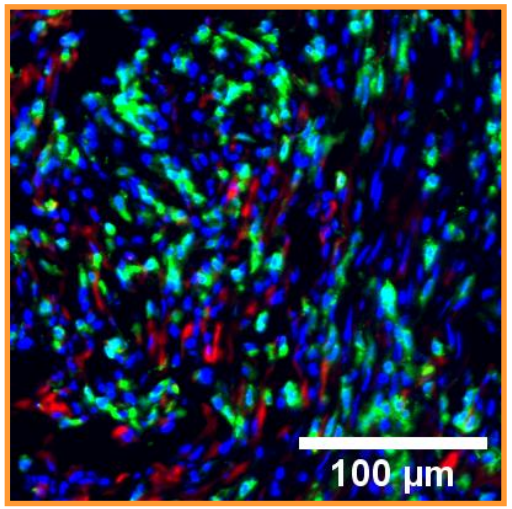


Stroma-rich area



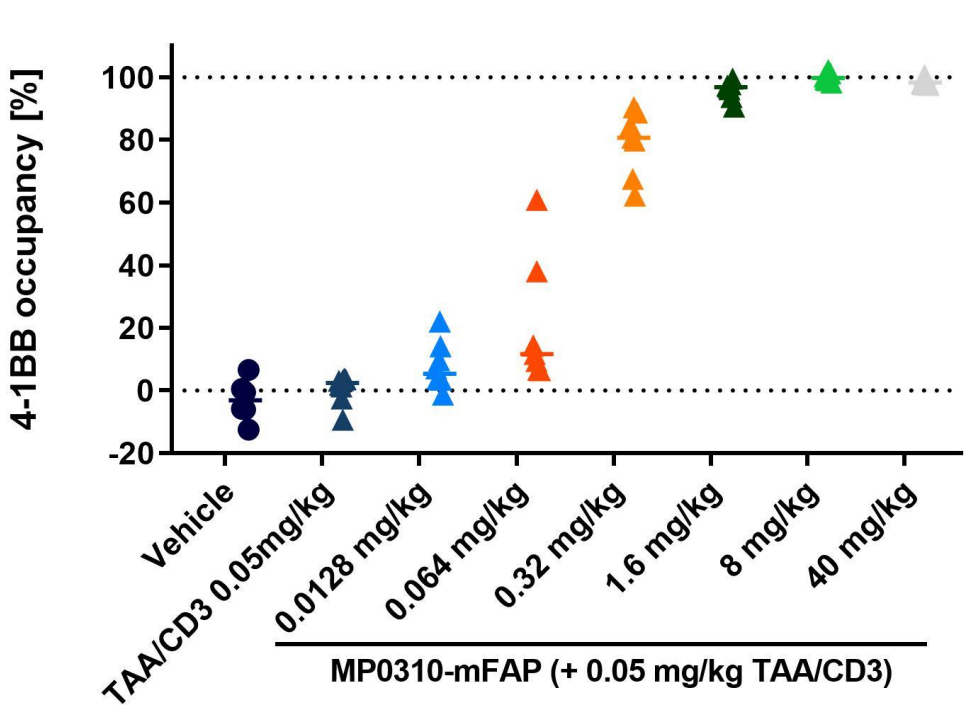
Stroma-poor area



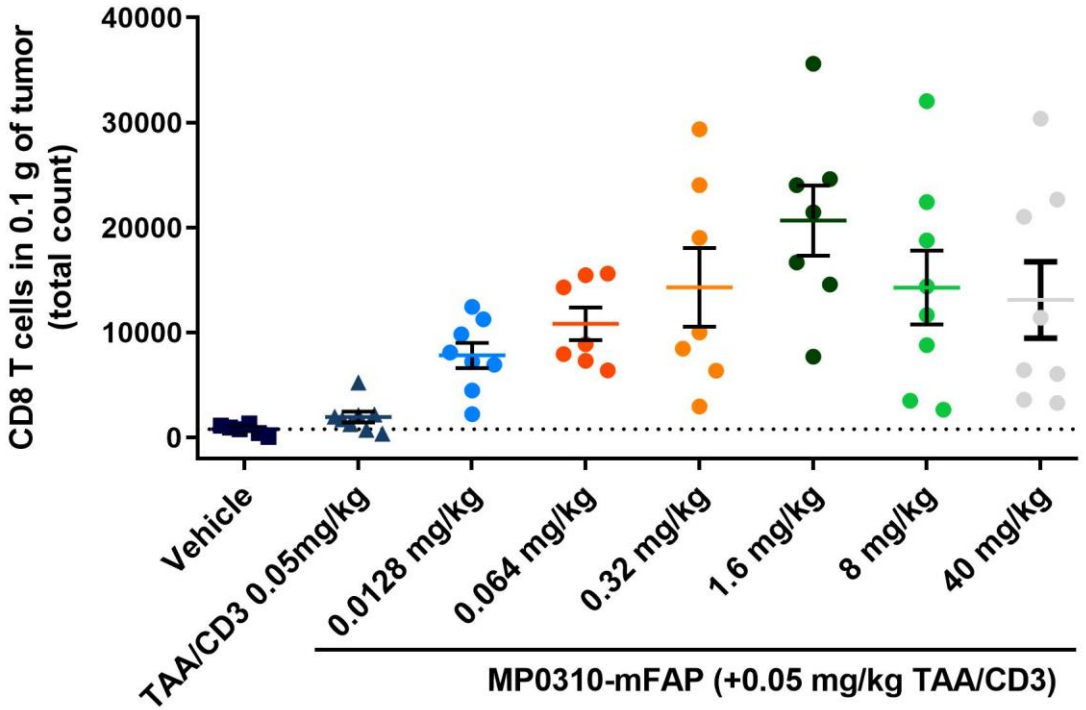


MP0310 Has a Broad Pharmacologically Active Dose Range

4-1BB receptor occupancy on human CD8 T cells
(blood FACS analysis on days 17/18)

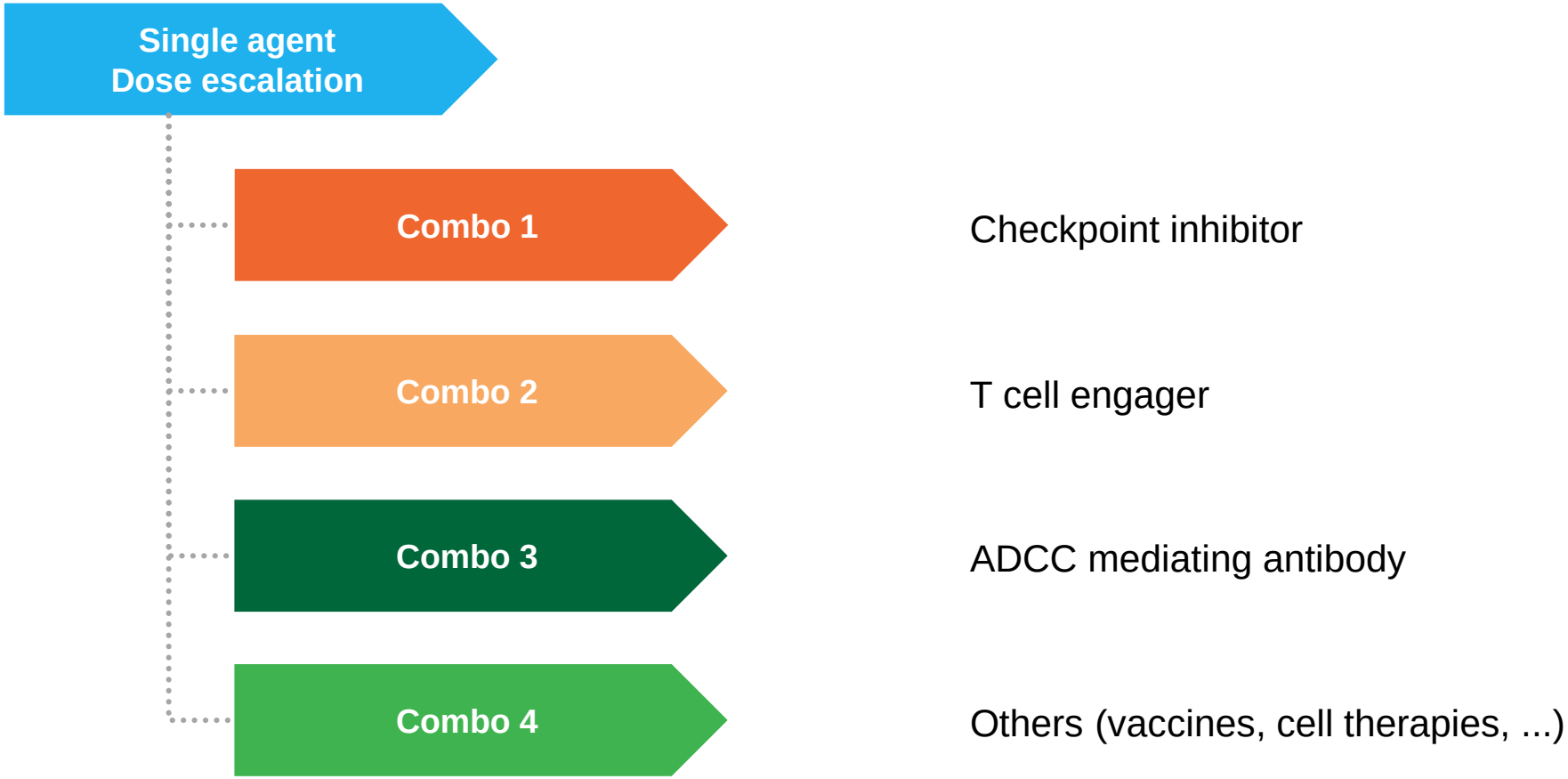


Intratumoral CD8 T cells
(FACS analysis on days 17/18)



MP0310 Suitable for Multiple Combinations and Indications

Potential combination partners



MP0310 Project Status

Pre-clinical development successfully demonstrated:

- Tumor localization in preclinical models
- FAP-dependent 4-1BB activation
- Tumor inhibition and increase in CD8+ tumor-infiltrating lyphocytes in combination with a T cell engager

GMP manufacturing process established with high yields (approximately 1.5 kg GMP material available from 3 runs in a 100 L fermenter)

GLP tox study ongoing

First-in-human clinical study planned to start in 2019

FAP x CD40:
Activating Antigen-Presenting Cells in the Tumor

DARPin® modules

Immune modulator	Localizer	Half-life extender

CD40 DARPin® | **FAP DARPin®** | **HSA DARPin®**

Illustrative graphic

- CD40: cell surface receptor. Member of the Tumor Necrosis Factor Receptor Super Family (TNFRSF)
- Constitutively expressed on antigen-presenting cells (dendritic cells, B cells, macrophages)
- Efficient signaling requires high level of receptor oligomerization
- Activates both innate (macrophage) and adaptive (T and B cells) immune response

- Agonistic CD40 antibodies have shown signs of activity in cancer patients, but systemic toxicity has limited their utility
- FAP x CD40 is a multi-specific DARPin® designed to improve efficacy and safety via tumor localized CD40 agonism
- Fully owned by Molecular Partners – IP protection at least until 2038

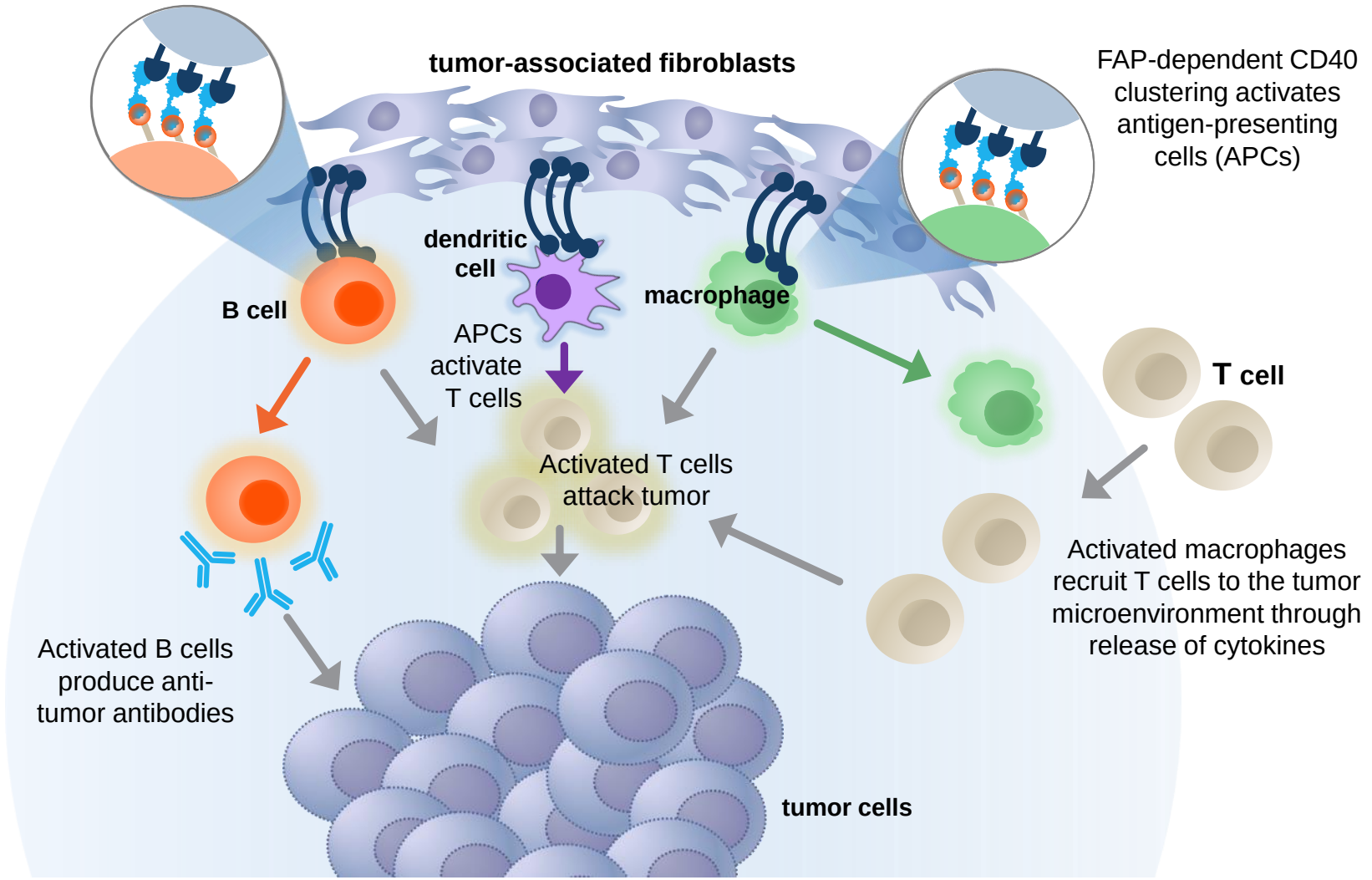
HSA, human serum albumin.

CD40: A Broad Activator of Antigen-Presenting Cells

1 CD40 clustering activates B cells to produce anti-tumor antibodies

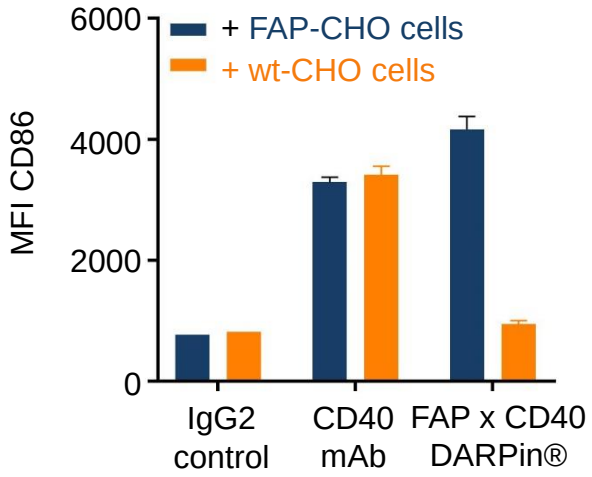
2 CD40 clustering activates dendritic cells, which activate T cells to attack tumor

3 CD40 clustering switches tumor-promoting (anti-inflammatory) M2 macrophages into tumor-suppressing (pro-inflammatory) M1 macrophages, which recruit T cells to the tumor and activate T cells



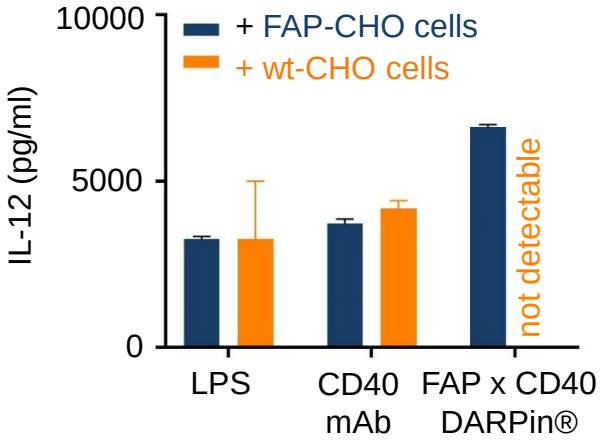
FAP x CD40: In Vitro Assays Confirm FAP-Dependent Activation of APCs

B cell assay



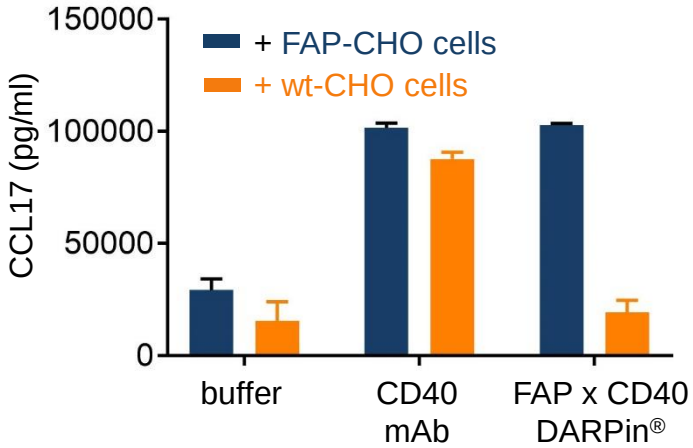
negative control

Dendritic cell assay



positive control

Macrophage assay



negative control

FAP x CD40 DARPin® Project Status

In vitro data so far demonstrate FAP-dependent CD40 activation of

- Dendritic cells
- B cells
- Macrophages

In vivo experiments are ongoing

Outlook

MOLECULAR partners

Molecular Partners' Oncology 2019 and Beyond

T cells

ENGAGE
Cytotoxic Immune Cells

- Multi-specific T cell engagers
- Tumor-activated T cell engagers

Antigen-presenting cells, T cells

PRIME & ACTIVATE
Localized Immune Modulators

- MP0310
- FAP x CD40
- 2 undisclosed programs

T cells

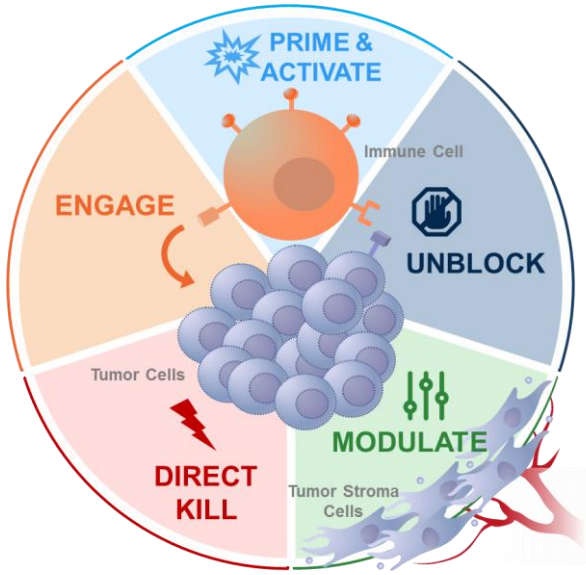
UNBLOCK
Checkpoint Approaches

- Undisclosed program

Tumor cells

DIRECT KILL
Direct Tumor Cell Killing

- MP0274 (biparatopic HER2)
- DARPin® drug conjugates



Tumor / Stromal cell interactions

MODULATE
Tumor Microenvironment Modulators

- MP0250 (VEGF x HGF)
- Undisclosed program

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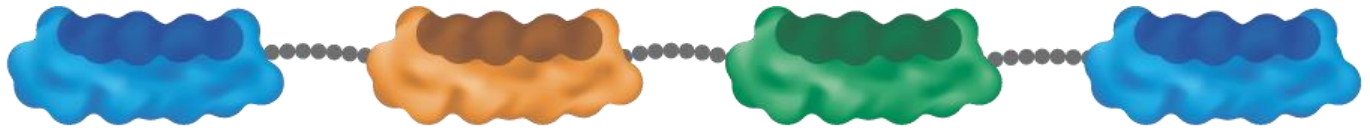
Development

DARPin® therapeutic candidates continue to progress through clinical milestones

MOLECULAR partners

MP0274: Killing HER2+ Cells by New MoA

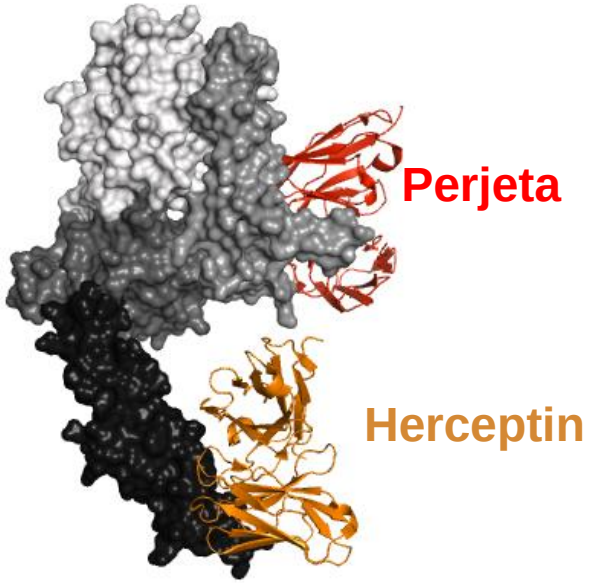


- Medical need: despite good antibody-based HER2+ treatments, eventually patients progress
- Novel mode of action: MP0274 is an allosteric inhibitor of HER2 blocking HER2- and HER3-mediated signaling and inducing apoptosis
- Induction of apoptosis in HER2-addicted cancer cells is a different MoA compared to all approved therapies (mABs and/or ADCs)
- Status: Phase 1 in HER2 positive tumor patients progressing on SOC
- Fully owned by Molecular Partners – IP protection until at least 2037

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

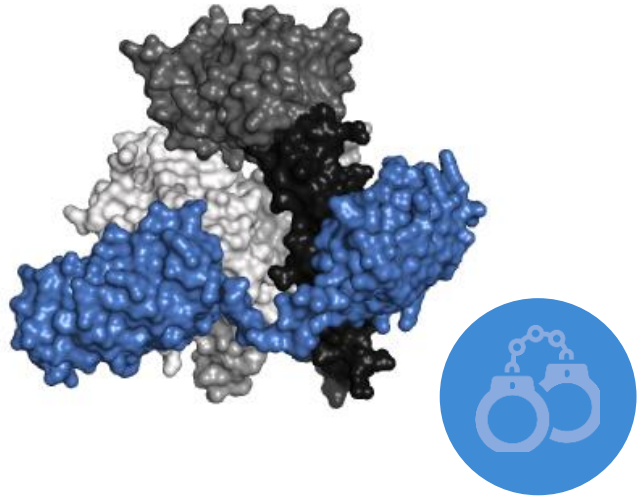
MP0274 Forces Her2 in Conformational Lock Leading to Apoptosis

Trastuzumab & Pertuzumab

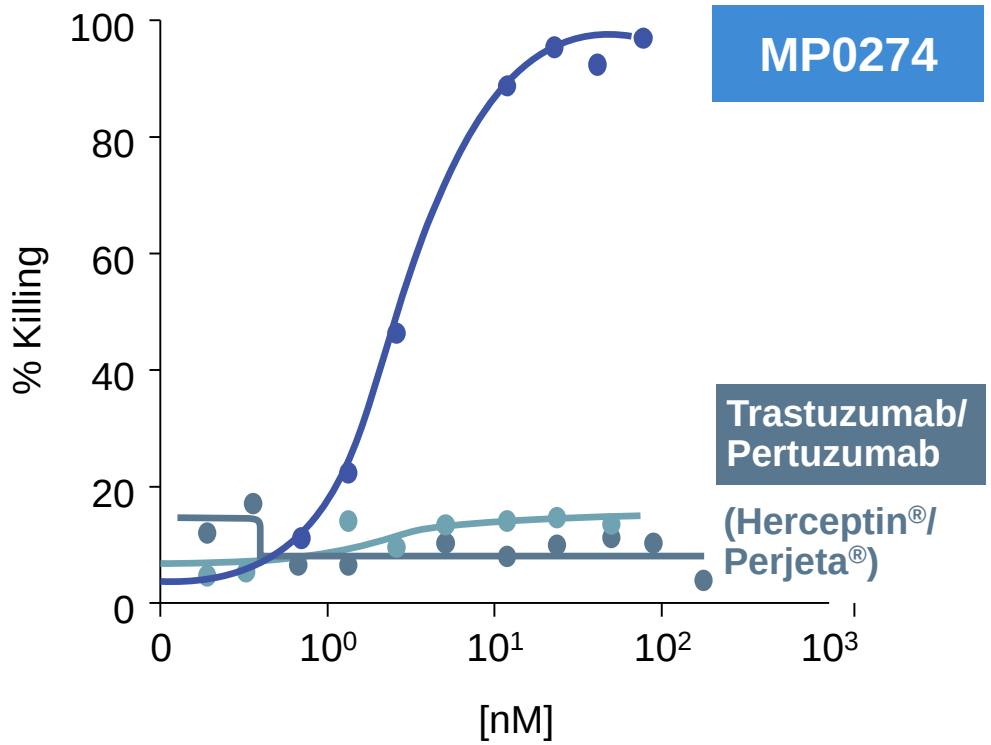


Herceptin and Perjeta block two distinct Her2 functions

MP0274 Bi-paratopic DARPin®



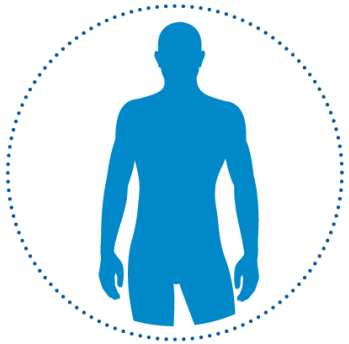
MP0274 handcuffs Her2 into fully inactive conformation*



New MoA may help patients who do not adequately respond to current therapies

* model picture

MP0274: Phase 1 Study in HER2+ Cancer Patients



Phase 1, first-in-human, single-arm, multicenter, open-label, repeated-dose, dose escalation study

- in patients with advanced HER2-positive solid tumors who have failed SOC including all HER2 targeted therapies
- **assess safety, tolerability and pharmacokinetics of MP0274**
- with **expansion cohort** at recommended dose to confirm safety and to **assess preliminary efficacy**

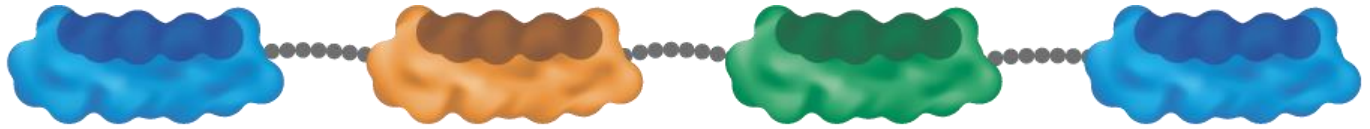
Study treatment (estimated enrollment of 46 patients):

- Dose Escalation ongoing, currently 6 patients enrolled*
- Dose Expansion planned at recommended dose

Next readouts: Additional safety data and first efficacy data expected in 2019

*Cut-off November 23rd 2018; Study details can be found at clinicaltrials.gov/NCT03084926.

MP0250: A First-in-Class Multi-DARPin® Product Candidate

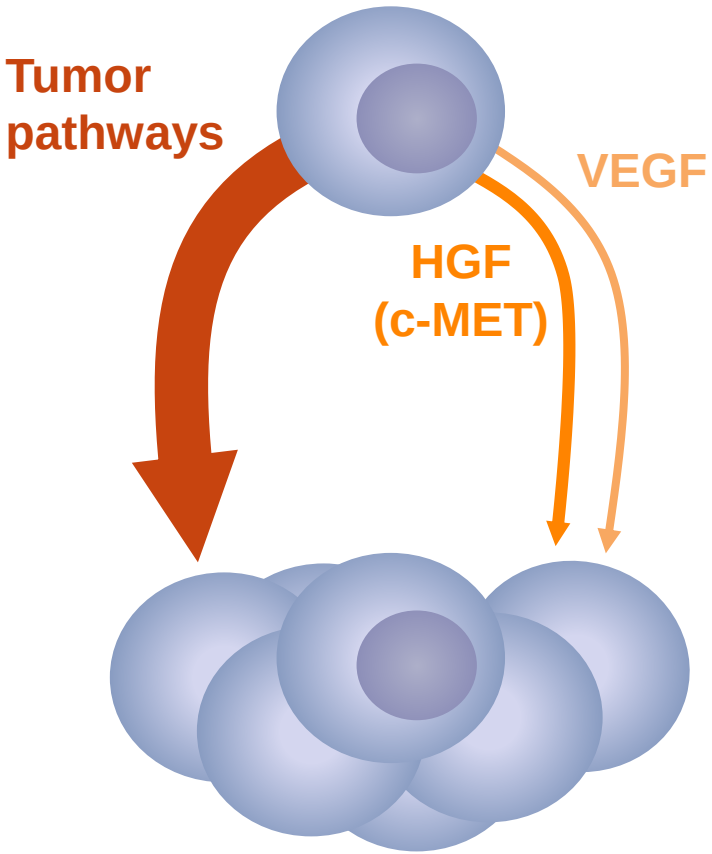


- First biologic blocking VEGF and HGF
- VEGF and HGF/c-MET key escape pathways for several SOC treatments
- Escape described for hematologic malignancies and solid tumors
- Blocking these escape pathways could restore clinical sensitivity to SOC
- Our choice of indications
  - **Multiple myeloma (MM)**
  - **EGFR-mutated non-small cell lung cancer (NSCLC)**
- Potential in additional indications and combinations
- Fully owned by Molecular Partners – IP protection at least until 2036

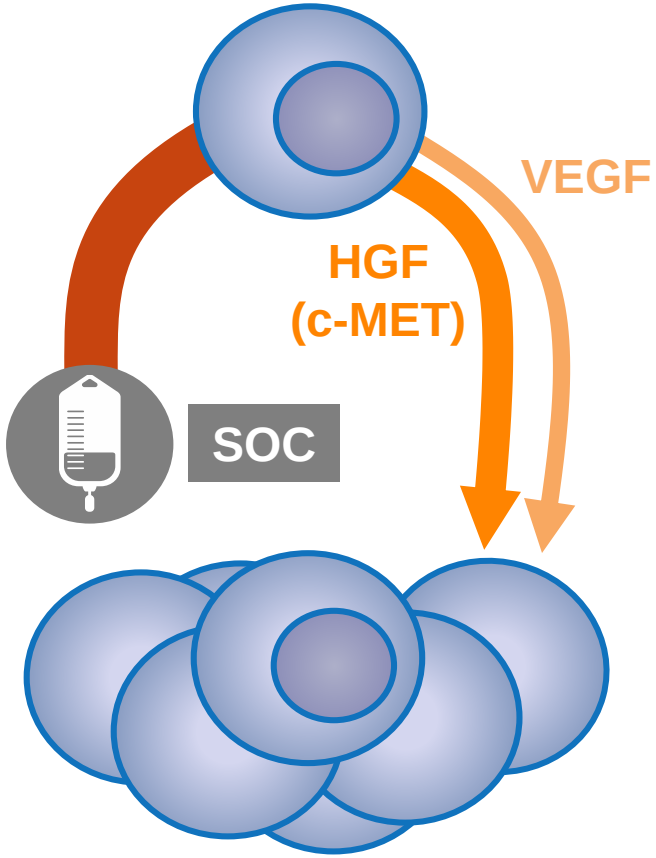
SOC, standard of care; HSA, human serum albumin.

MP0250 Blocks Two Tumor Escape Pathways

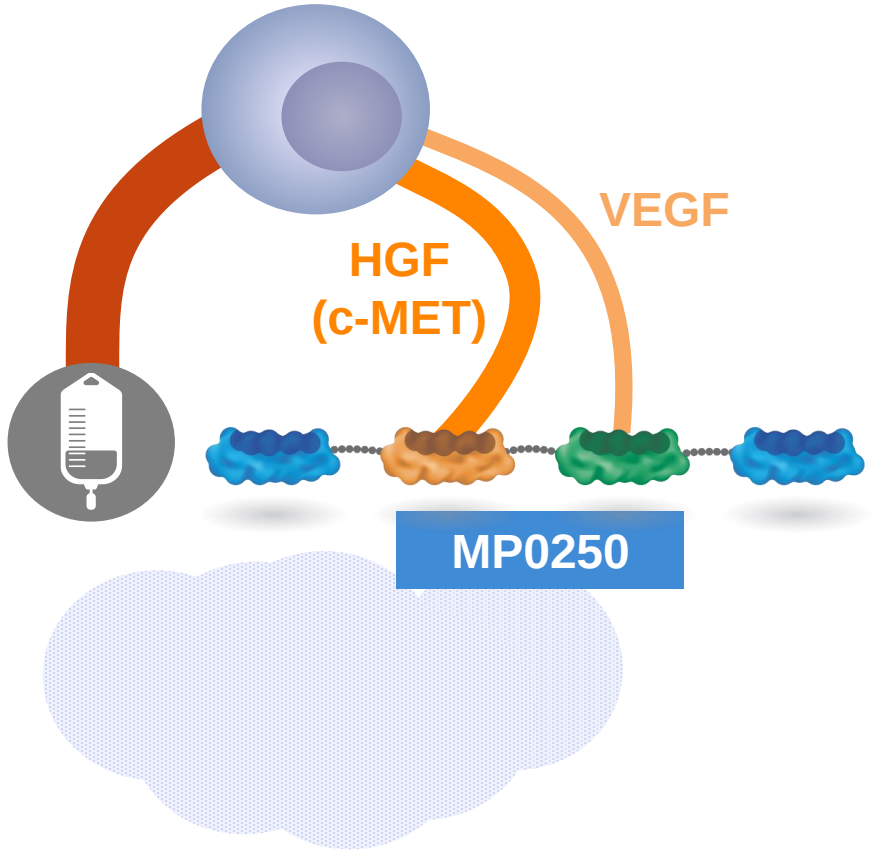
Untreated



Upregulation of escape pathways after SOC



Medical need: Agents that block escape pathways to SOC



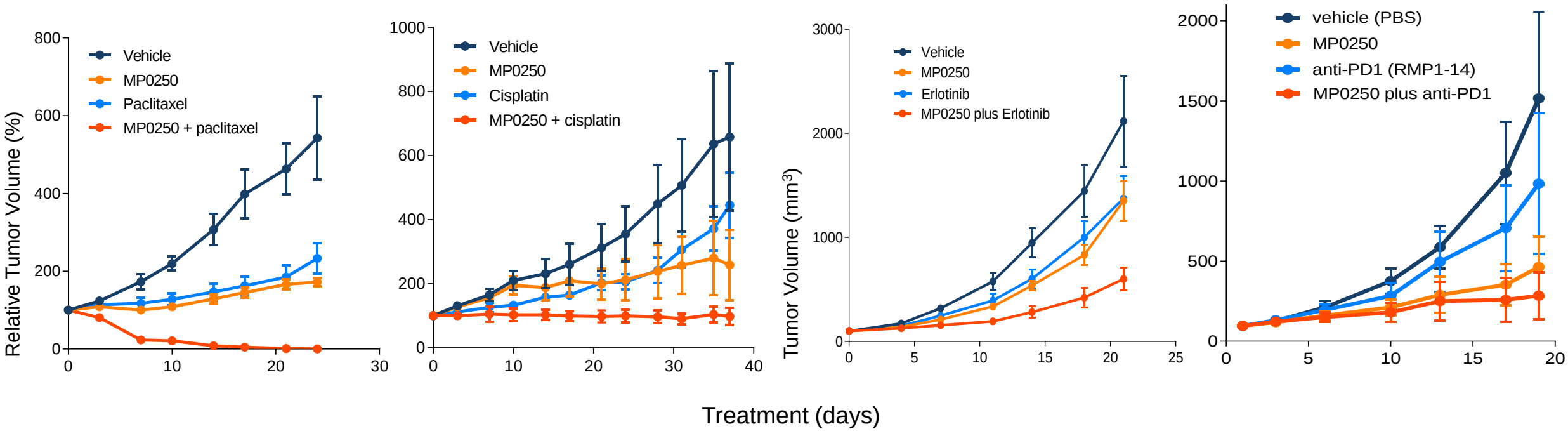
MP0250 can be Combined with many Standard of Care Drugs across Different Tumors

Gastric Cancer
Combination with Chemo
PDX model

Head & neck Cancer
Combination with Chemo
PDX model

Lung Cancer
Combination with TKI
PDX model

Colorectal Cancer
Combination with PD1
Syngeneic mouse model*



PDX model, patient-derived xenograft mouse model. *MC38 syngeneic mouse model;

Phase 1 Established DARPin® Platform as Systemic Anticancer Agents

Safe, convenient dosing, with clear signs of efficacy even on stand-alone basis

PATIENT POPULATION: Solid tumor patients refractory to SOC

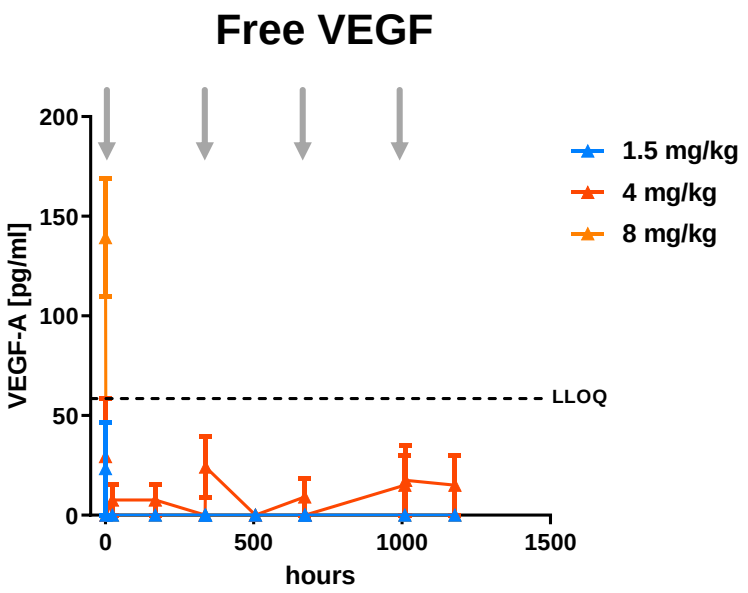
Dosing Convenient, flexible administration	**Exposure** Favorable exposure	**Safety** Well tolerated	**Efficacy** Clear signs even stand alone
▪ Well tolerated ▪ Dosing every 2 or 3 weeks ▪ Half-life ~2 weeks ▪ Convenient 1 hr infusion ▪ Trial dosage: 8mg/kg every 2 weeks or 12mg/kg every 3 weeks	▪ Sustained drug exposure over multiple cycles (up to >1 year) ▪ Low immunogenicity (only 2 out of 42 patients with relevant[1] increase in ADA titers)	▪ AEs as expected for any VEGF inhibitor ▪ Hypertension most frequent AE, observed in approx. 2/3 of patients, with grade 3 in about 1/3 of patients ▪ SAEs (in > 1pt) were nephrotic syndrome (4pt), venous thromboembolism (3pt), anemia (2pt) and dyspnea (2pt)	▪ Significant reduction in tumor volume in two patients ▪ Treatment duration (% of patients): ≥3 months for 40% ≥6 months for 10%

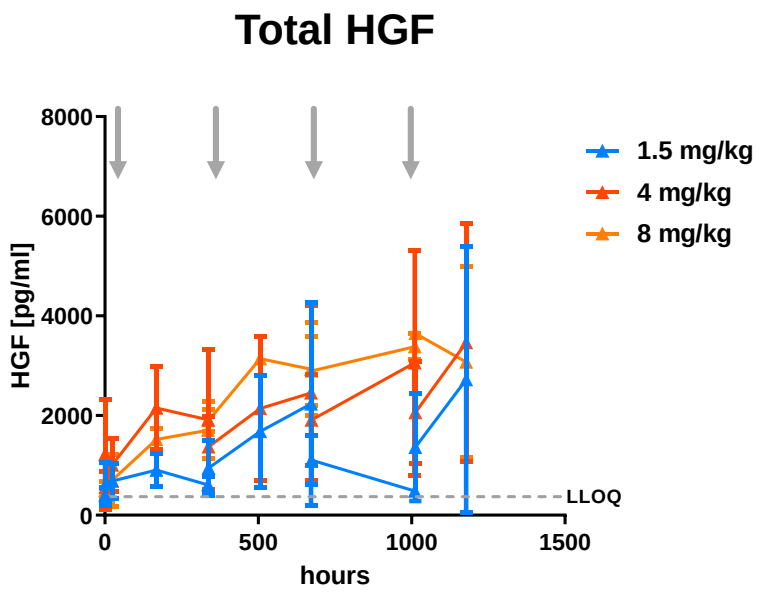
1. More than 20-fold above background, no demonstrable effect on PK

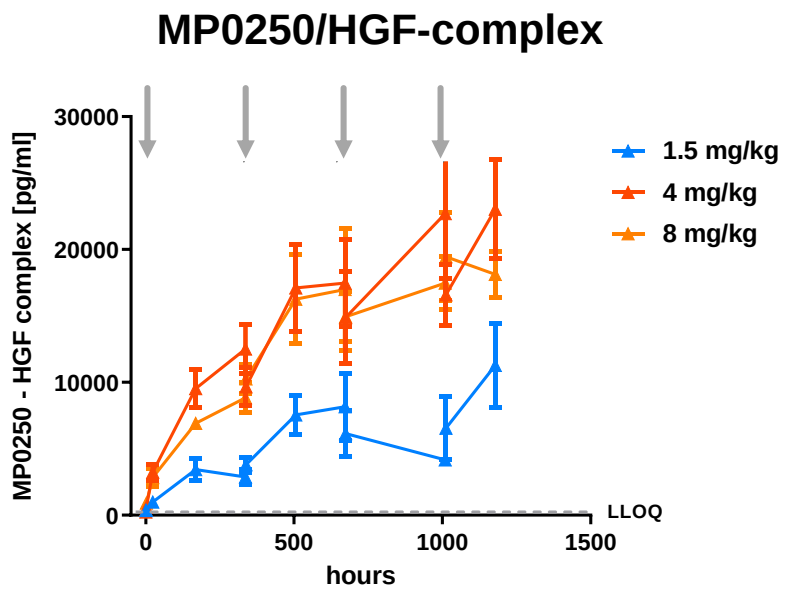
MOLECULAR partners

MP0250 binds circulating VEGF-A and HGF

- MP0250 suppresses plasma VEGF-A levels at doses as low as 1.5mg q2weeks
- Plasma HGF and HGF-MP250 complexes increase indicative of complete binding of circulating HGF

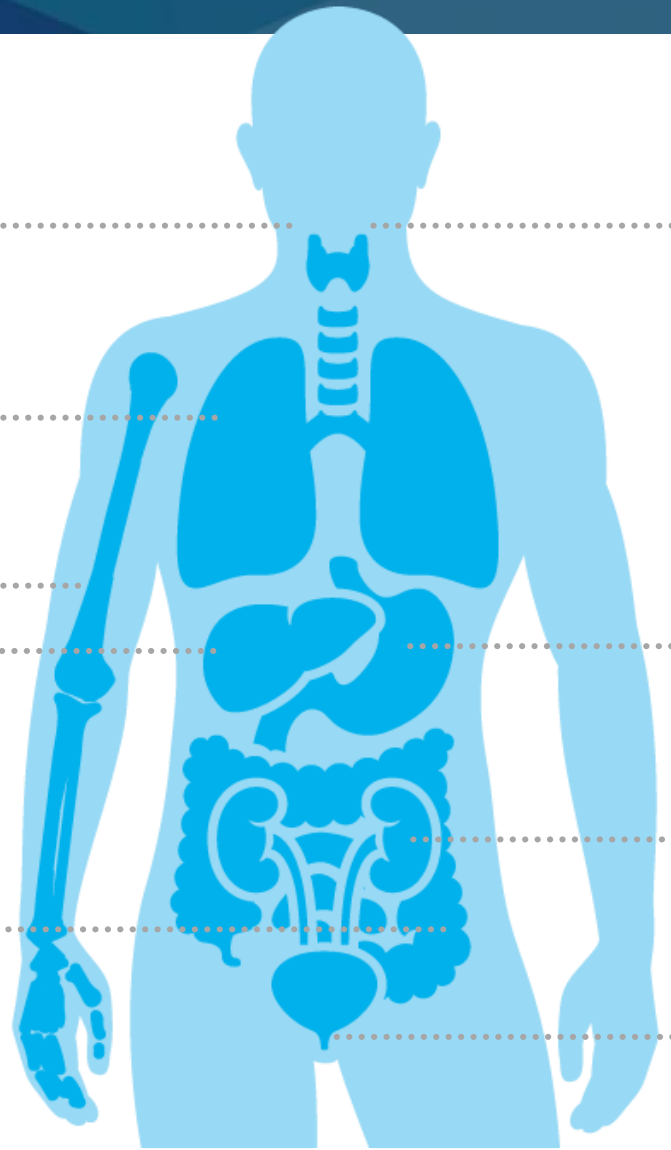






Data: Mean +/- SEM

MP0250: Potential to Treat Several Indications



Head and neck squamous cell

EGFR-mutated NSCLC

Multiple myeloma

Hepatocellular carcinoma

Colorectal cancer

Nasopharyngeal

Gastric cancer

Renal cancer

Anal cancer

INCIDENCE:[1]

- <50,000
- 50,000 – 100,000
- >100,000

1) Including US/5EU/JP. Datamonitor.

MOLECULAR partners

MP0250: Initial Focus

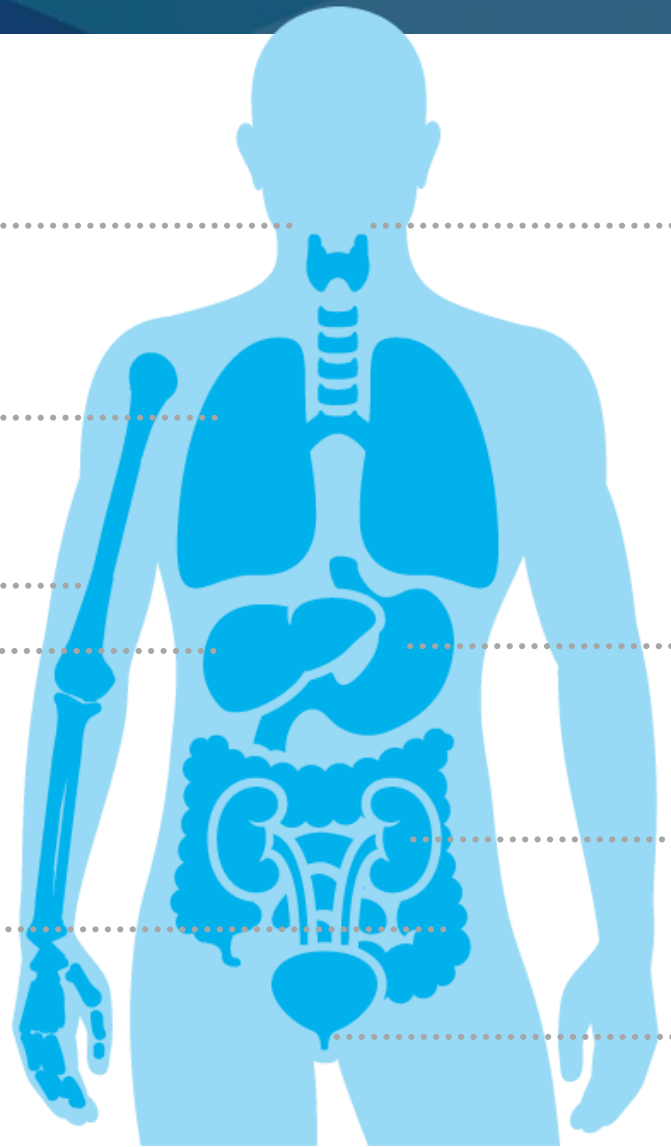
Head and neck squamous cell

EGFR-mutated NSCLC

Multiple myeloma

Hepatocellular carcinoma

Colorectal cancer



Nasopharyngeal

Gastric cancer

Renal cancer

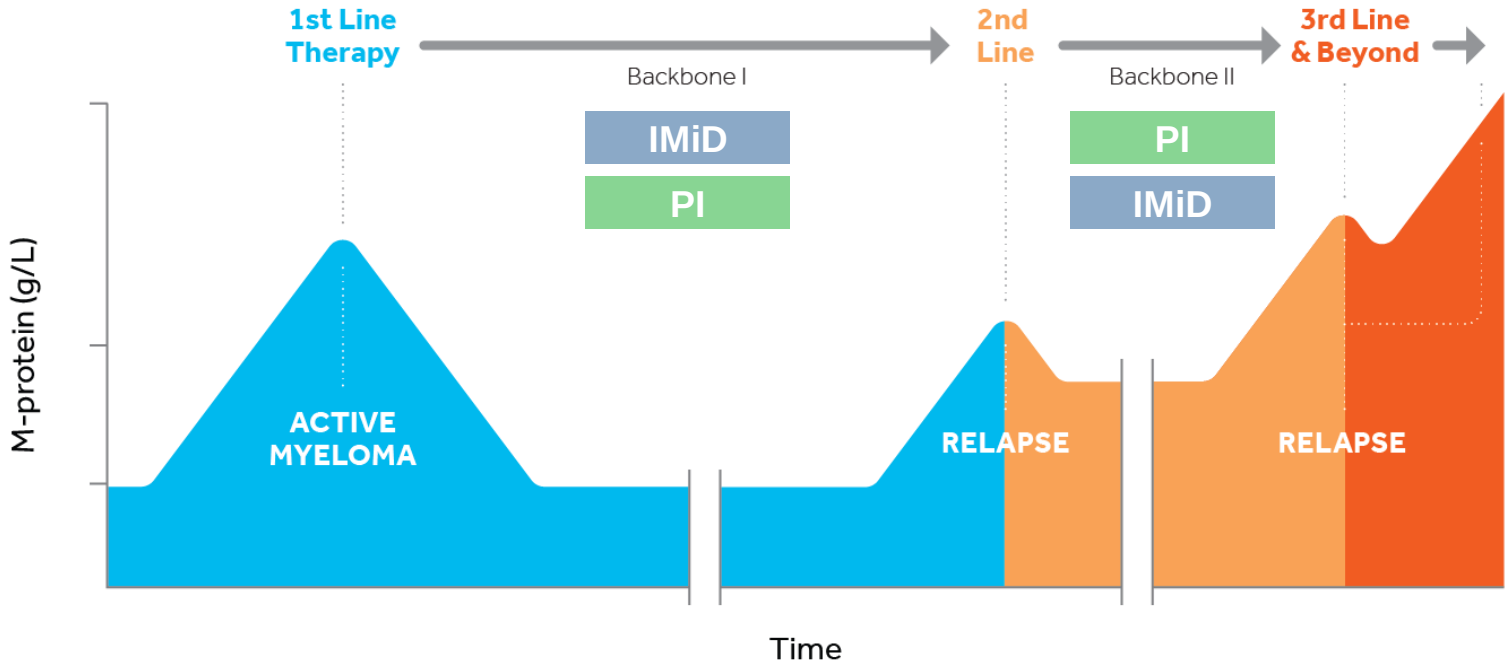
Anal cancer

1) Including US/5EU/JP. Datamonitor.

MOLECULAR partners

Unmet Need in Multiple Myeloma

Illustrative course of disease of a MM patient[1]



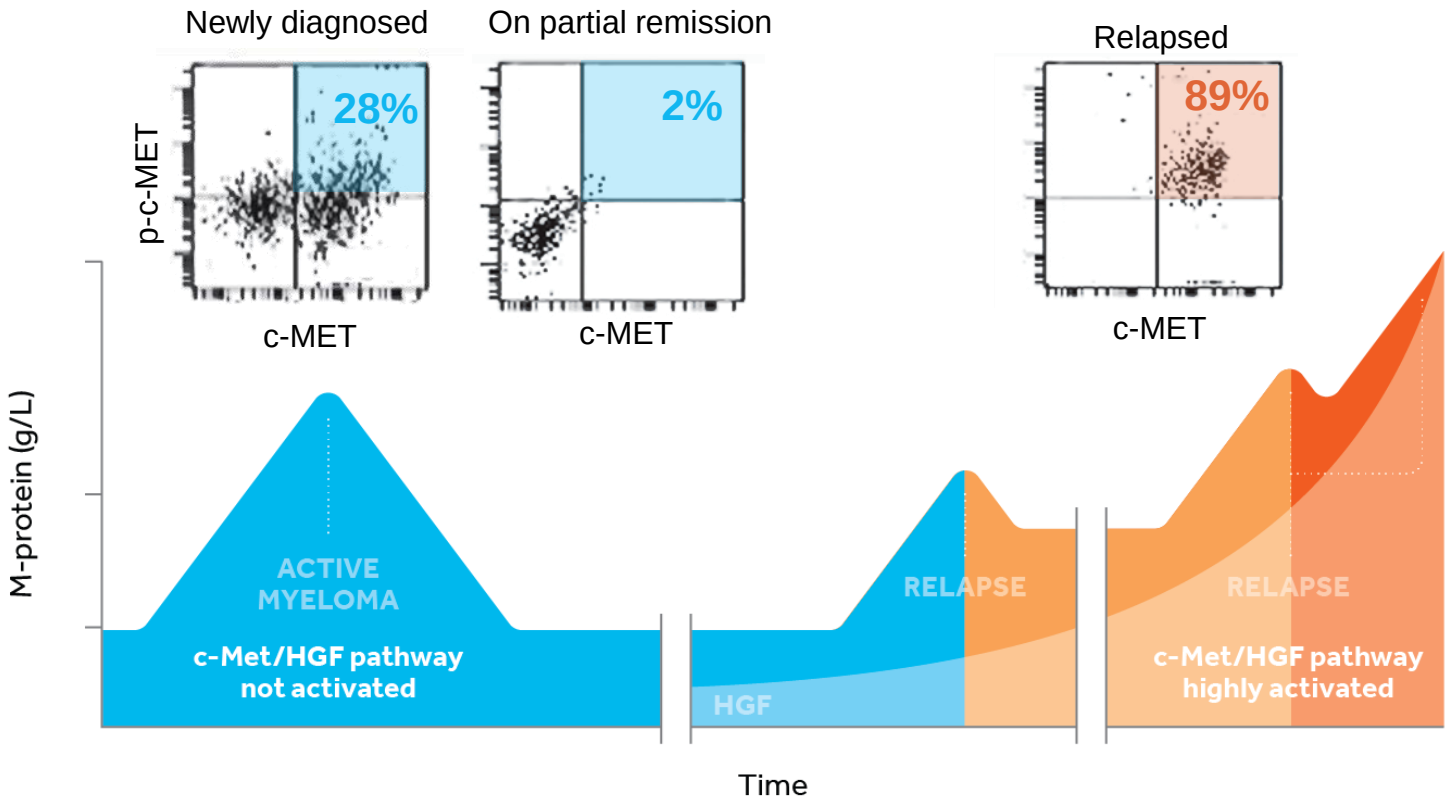
Disease remains incurable for most patients as MM cells acquire adaptive resistance to all currently available therapies

- Relapse is inevitable
- Time to relapse gets shorter with every treatment cycle
- Quality of response tends to diminish

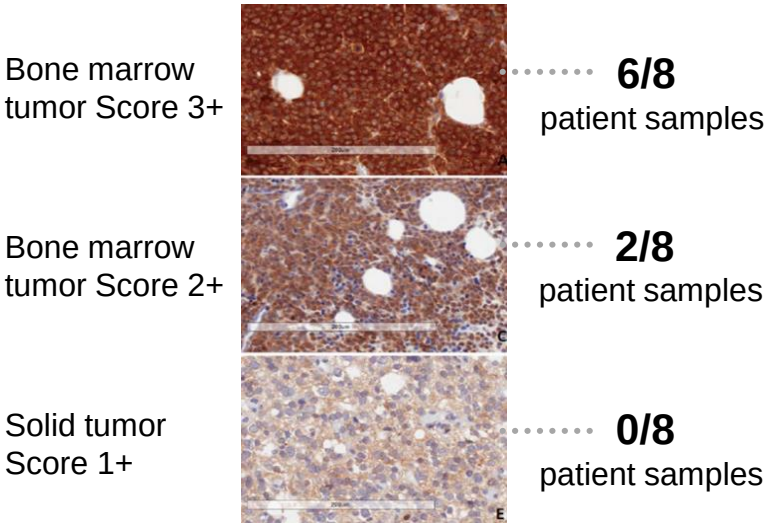
1) Hajek, R. Strategies for the Treatment of Multiple Myeloma in 2013: Moving Toward the Cure. In "Multiple Myeloma: A Quick Reflection on the Fast Progress" (2013).

HGF /c-Met Upregulation in Refractory/Relapsed Multiple Myeloma

Dynamic activation of the HGF pathway during disease progression[1].



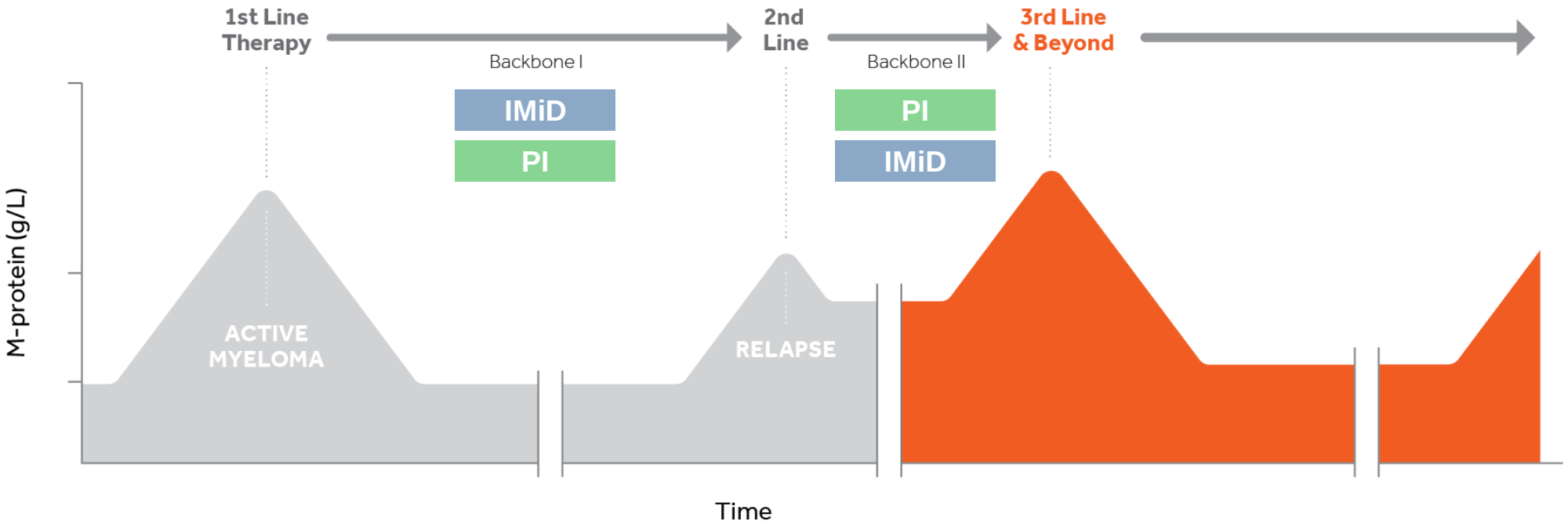
HGF is highly overexpressed in bone marrow biopsies of multiple myeloma patients



High HGF levels in serum is a poor prognostic factor in multiple myeloma[2]

1. Moschetta M, et al. Clin Cancer Res 2013;19:4371-82 2. Wader K.F. et al, Eur. J. Haematol 2002

Our Vision: Lengthening Efficacy of Existing Treatments



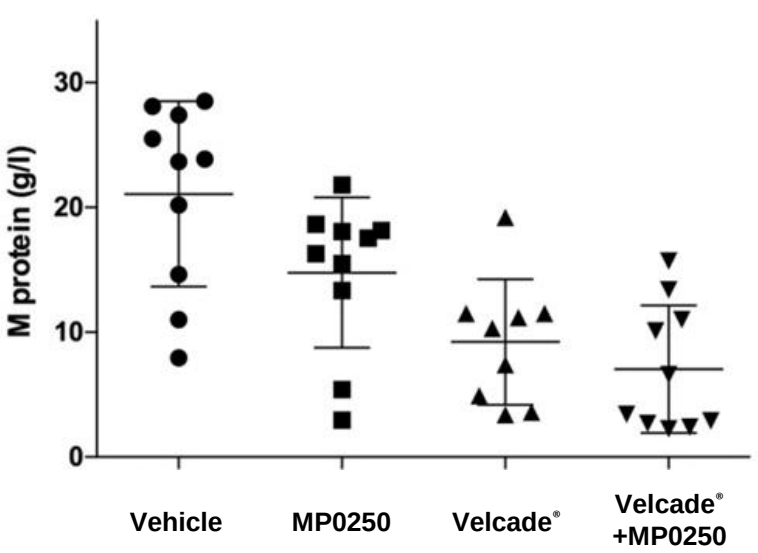
Addition of MP0250 to any SOC potentially results in:

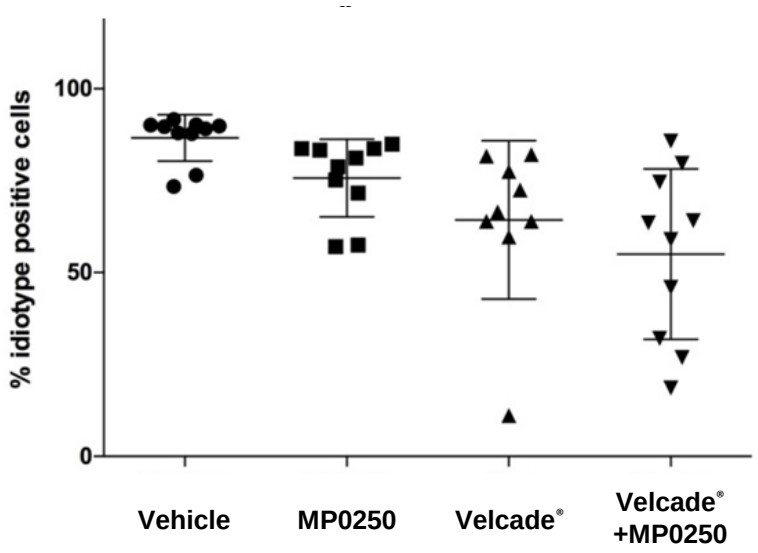
- Reversal of adaptive resistance
- Longer time to progression
- Deeper responses

MP0250 plus Velcade®: Two-Pronged Attack on Tumor Cells as well as Supporting Tumor Stroma

PI

Within tumor cells

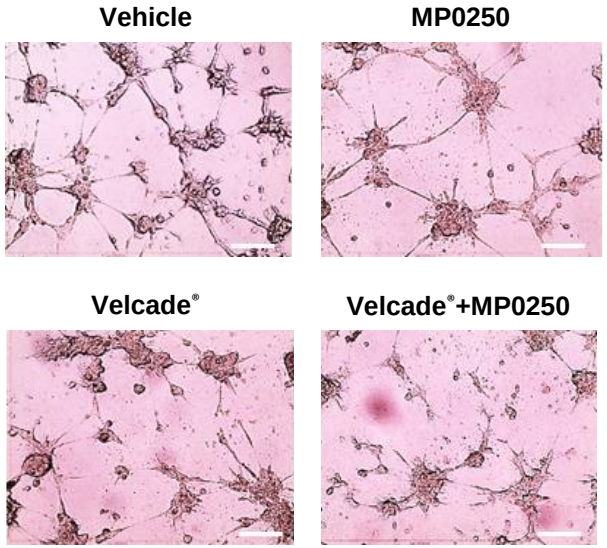




MP0250 in combination with Velcade® inhibits tumor growth

MP0250 in combination with Velcade® decreases the number of tumor cells

Within tumor microenvironment



Velcade® in combination with MP0250 inhibits multiple myeloma endothelial cell sprouting / angiogenesis

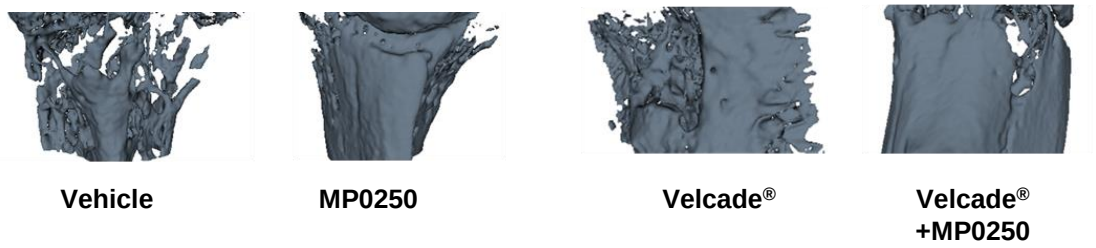
Syngenic, orthotopic mouse model.
Rao et al. 2018.

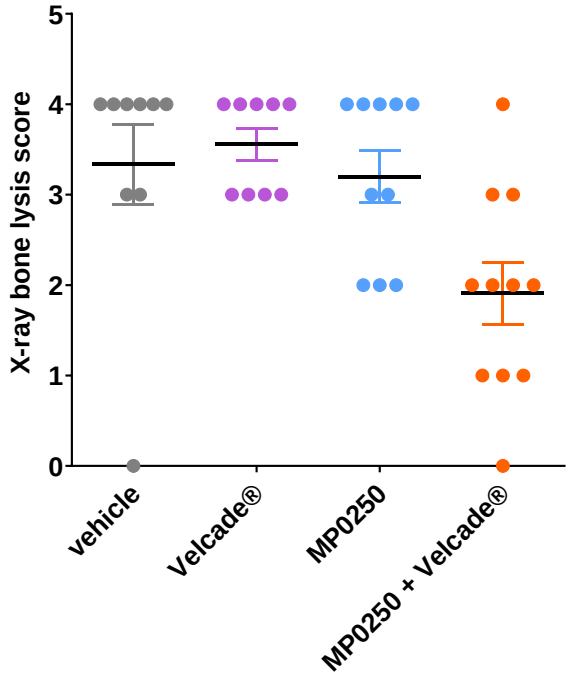
MOLECULAR partners

MP250 plus Velcade® – Impact on the Two Hallmarks of MM

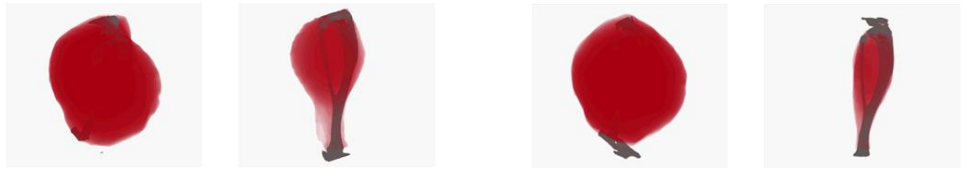
PI

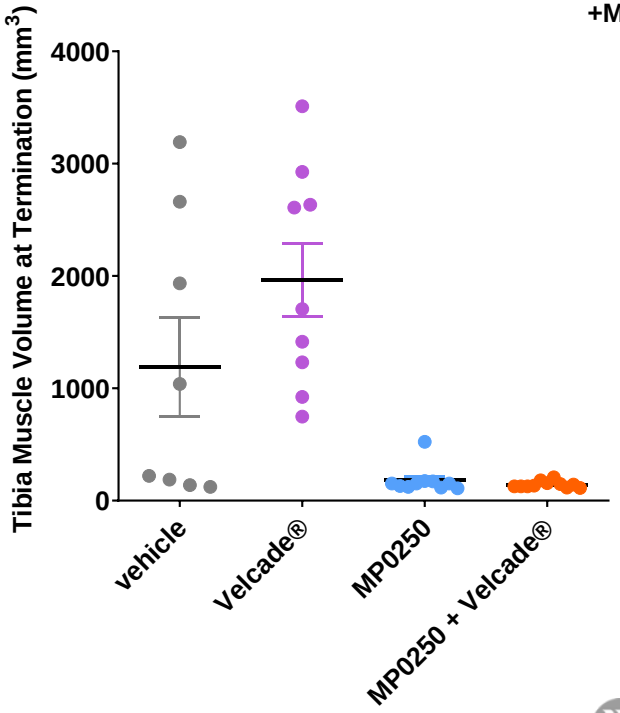
Impact on bone lysis





Impact on tumor cell invasion



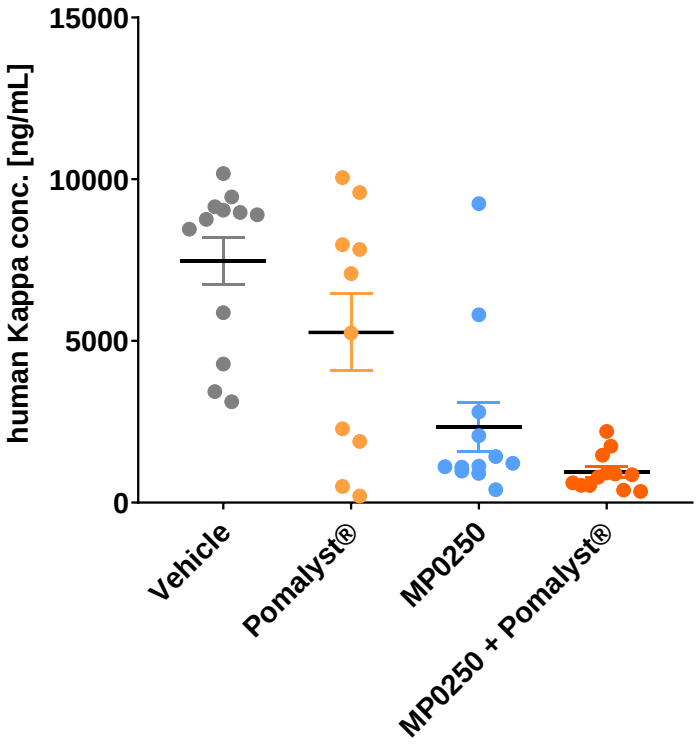


Graphs present mean and standad error of mean

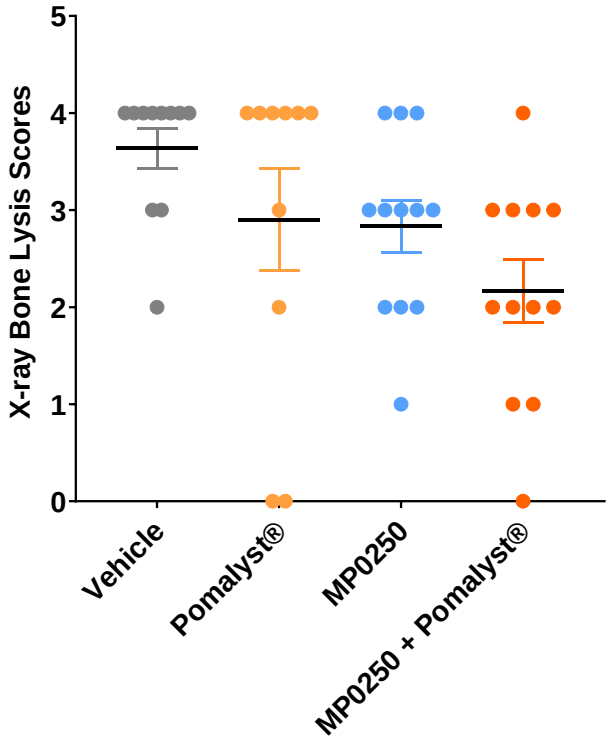
MP0250 plus Pomalyst® – Impact on the Two Hallmarks of MM

IMiD

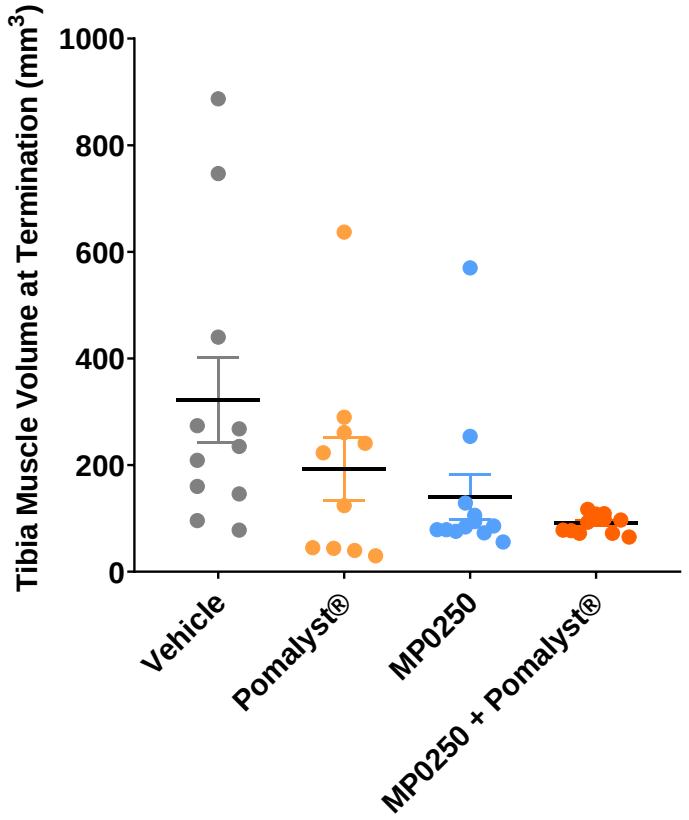
Impact on M-Protein



Impact on bone lysis



Impact on tumor cell invasion



Graphs present mean and standad error of mean

MOLECULAR partners

MP0250 Phase 2 Study in MM

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

	START Q2 2017	DOSE ESCALATION (cohort 1)	DOSE ESCALATION (cohort 2)	DOSE EXPANSION
DESIGN		n = 8 patients 8 mg/kg every 3 weeks	n = 3 12 mg/kg every 3 weeks	app. 40 at recommended dose of 8 mg/kg every 3 weeks
STATUS		▪ Recruitment completed ▪ Cohort 1 First efficacy and safety data published ▪ Dose escalation decided	▪ 2 out of 3 patients with DLT ▪ DLTs in line with MoA of a VEGF inhibiting agent: 1 thrombocytopenia with epistaxis, 1 proteinuria	▪ Recruitment ongoing

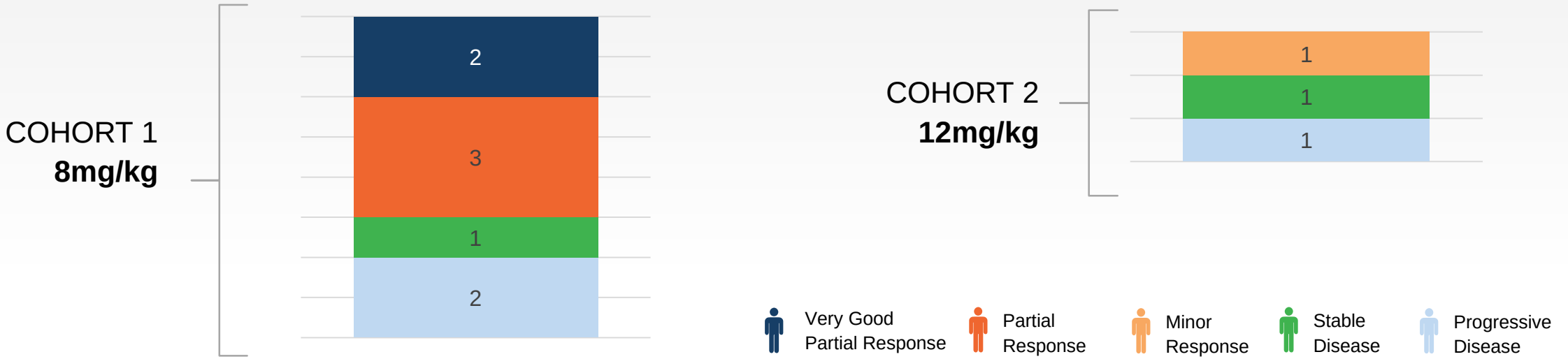
Study details: clinicaltrials.gov/NCT03136653.

MP0250 in MM: Most common adverse events

Treatment Emergent Adverse Event reported (n=11)

Adverse Event	Part 1: Dose escalation			
	Cohort 1: 8 mg/Kg (n=8)		Cohort 2: 12 mg/Kg (n=3)	
	Any Grade	Grade ≥ 3	Any Grade	Grade ≥ 3
Hematologic adverse events				
Neutropenia	-	-	3 AE (1 pt.)	2 AEs (1 pt.)
Thrombocytopenia	4 AEs (3 pts.)	1 AE (1 pt.)	12 AEs (3 pts.)	8 AEs (3 pts.)
Anaemia	-		8 AEs (2 pts.)	4 AEs (2 pts.)
Non-hematologic adverse events				
Epistaxis	-	-	5 AEs (1 pt.)	-
Peripheral Sensory Neuropathy	2 AE (1 pt.)	-	1 AE (1 pt.)	-
Hypertension	5 AEs (5 pts.)	3 AE (3 pt.)	3 AEs (3 pt.)	1 AE (1 pt.)
Proteinuria	1 AE (1 pt.)	1 AE (1 pt.)	2 AEs (2 pt.)	1 AE (1 pt.)
Nausea	1 AE (1 pt.)	1 AE (1 pt.)	3 AEs (1 pt.)	-
Respiratory tract infection	1 AE (1 pt.)	1 AE (1 pt.)	1 AE (1 pt.)	-
ALT elevation	2 AEs (1 pt.)	1 AE (1 pt.)	-	-
AST elevation	1 AE (1 pt.)	-	-	-
GGT elevation	1 AE (1 pt.)	1 AE (1 pt.)	-	-
Diarrhoea	-	-	1 AE (1 pt.)	-

MP0250 Phase 2 Study in MM Initial Read-out: Promising Signs of Efficacy

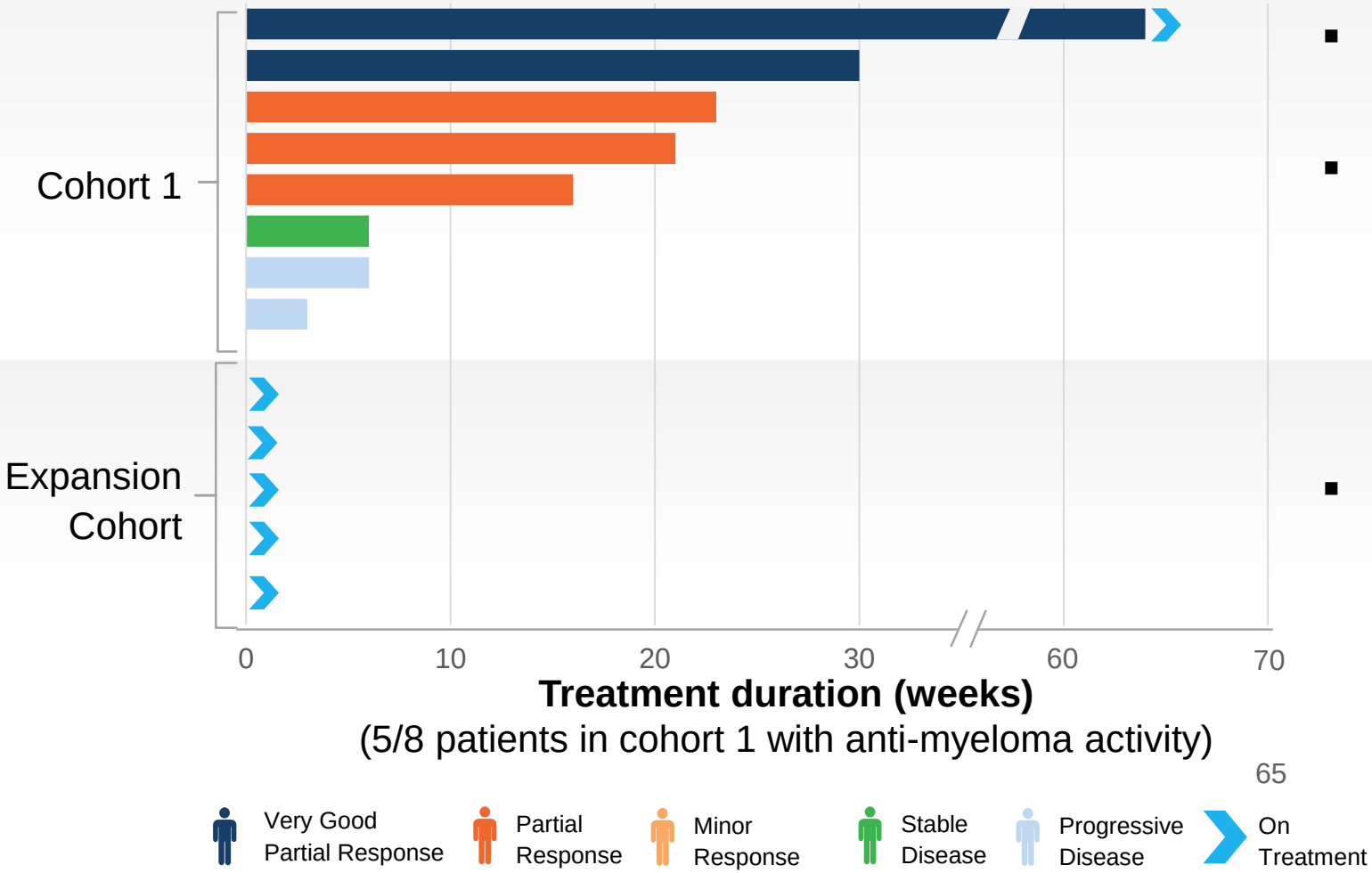


- 5 out of 8 patients in cohort 1 with objective response
- Best responses were 2 VGPR, 3 PR

- MP0250 at 8mg/kg in combination with Velcade® and dexamethasone has shown a tolerable safety profile and clinical activity
- Expansion cohort with 8mg/kg started

Data cut-off: November 02, 2018

MP0250 Phase 2 Study in MM Initial Read-out: Promising Signs of Efficacy

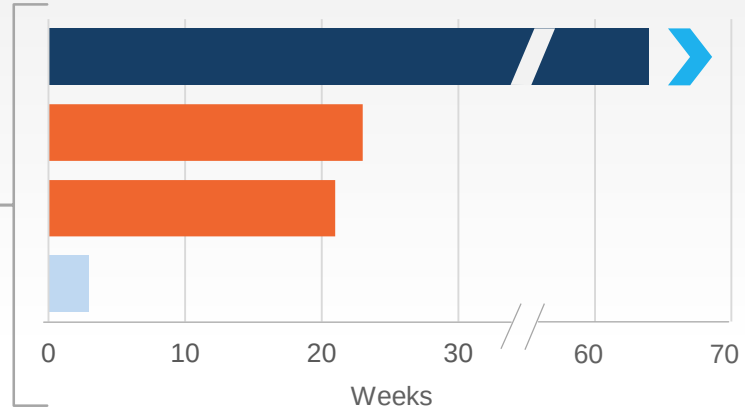


- Durable remission observed in heavily pretreated patients
- Longest duration observed to date for MP0250 in combination with Velcade® /Dexamethasone is >12 months
- Expansion cohort well underway

Data cut-off: November 02, 2018 for cohort 1; status expansion cohort per 23rd November 2018
dose level: 8mg/kg/3weeks.

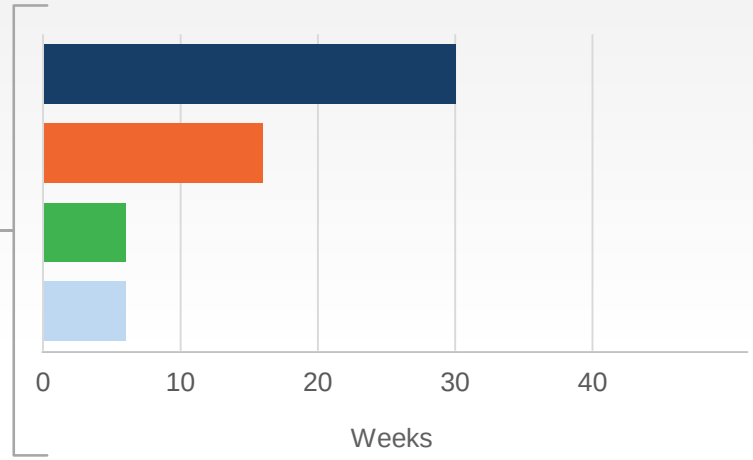
MP0250 has the Potential to Overcome Adaptive Resistance

Patients coming directly from **PI**



- Three out of four patients who were coming immediately from a PI-based regimen achieved a response.
- MP0250 has potential to overcome adaptive resistance mechanism

Patients coming directly from **IMiDs**

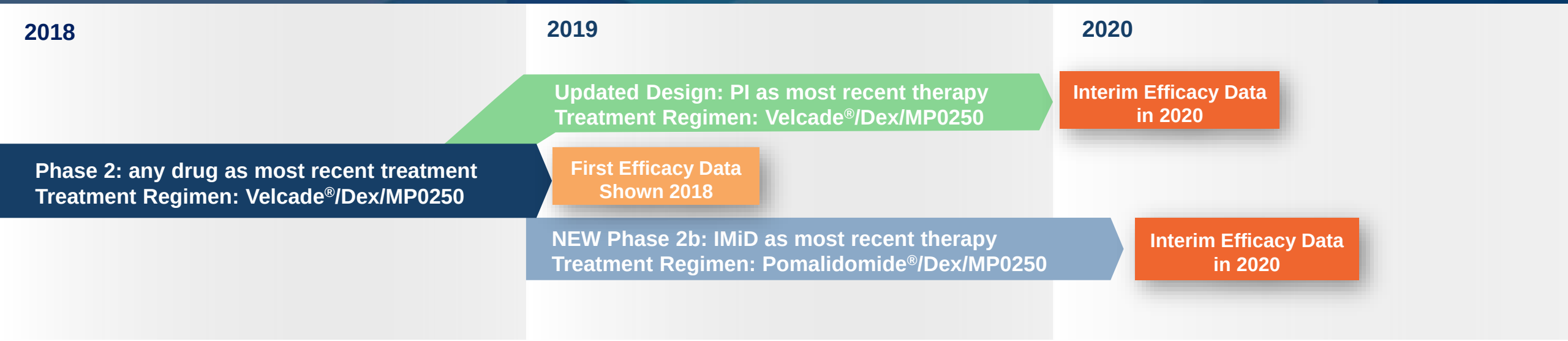


- Two out of four patients who were coming from IMiD-based regimen achieved a response
- Relative contribution of MP0250 versus class switch to be established

Very Good Partial Response | Partial Response | Stable Disease | Progressive Disease | On Treatment

Data cut-off: November 02, 2018

MP0250 Development Strategy



Study population:

- MM patients who have received ≥2 lines of therapy, including Velcade® and IMiD, and have shown no response or progressed on most recent therapy
- **Updated design:** Most recent therapy must be a Velcade®- or Carfilzomib-based regimen
- **New Study:** MP0250 + IMiD therapy (Pomalidomide®) in patients who progressed or failed to respond to Pom or Rev as most recent line of therapy

Rationale:

- Design assesses direct impact of MP0250 : Any response has to be attributed to MP0250
- Allows for validation of the claim of MP0250 restoring clinical sensitivity
- Patients are their own control: A limited number of patients generate significant data

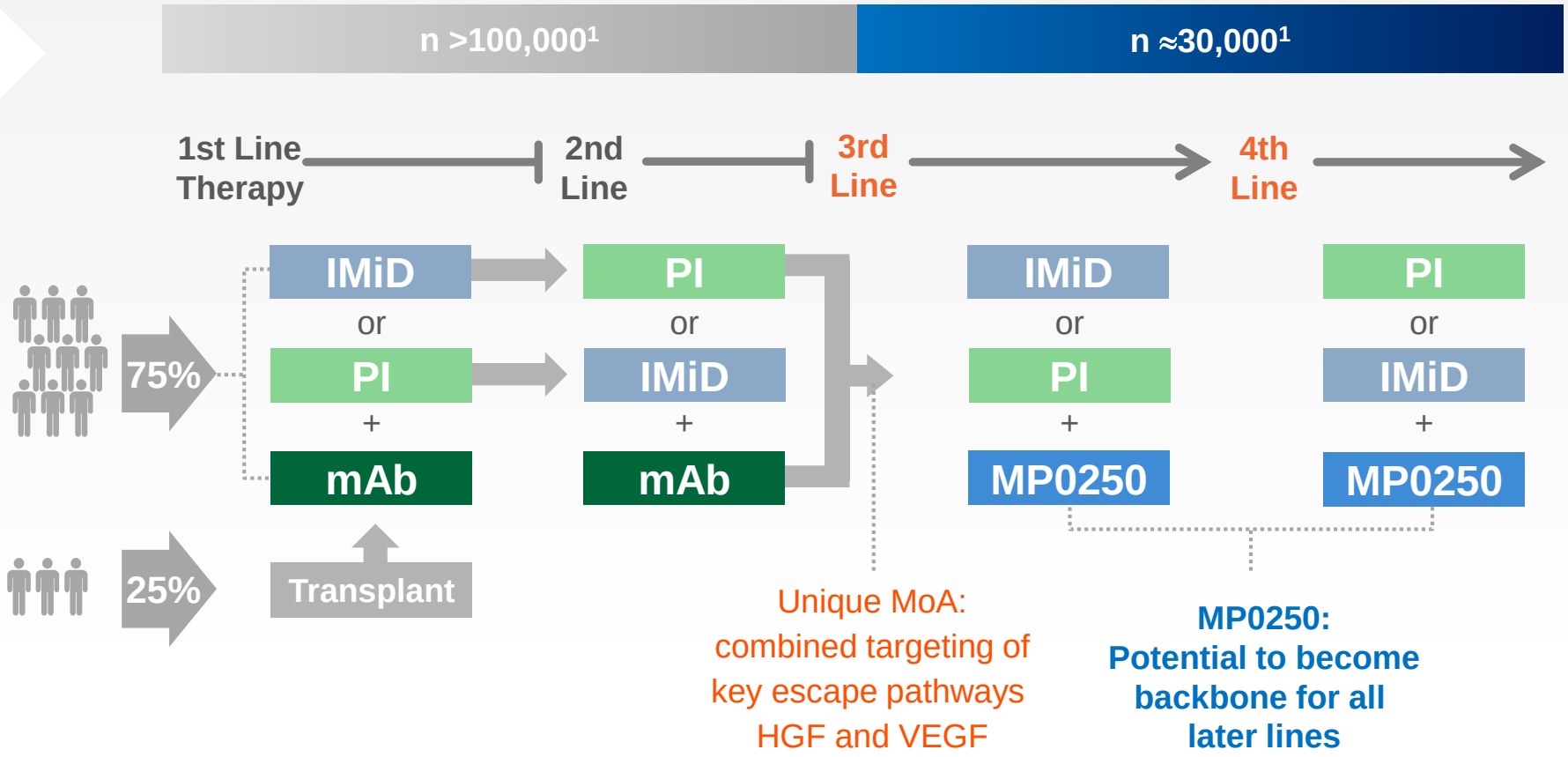
Unique Potential of MP0250 in MM

Multiple myeloma:
2nd most common blood cancer

Global market value of MM treatment:
$13 billion

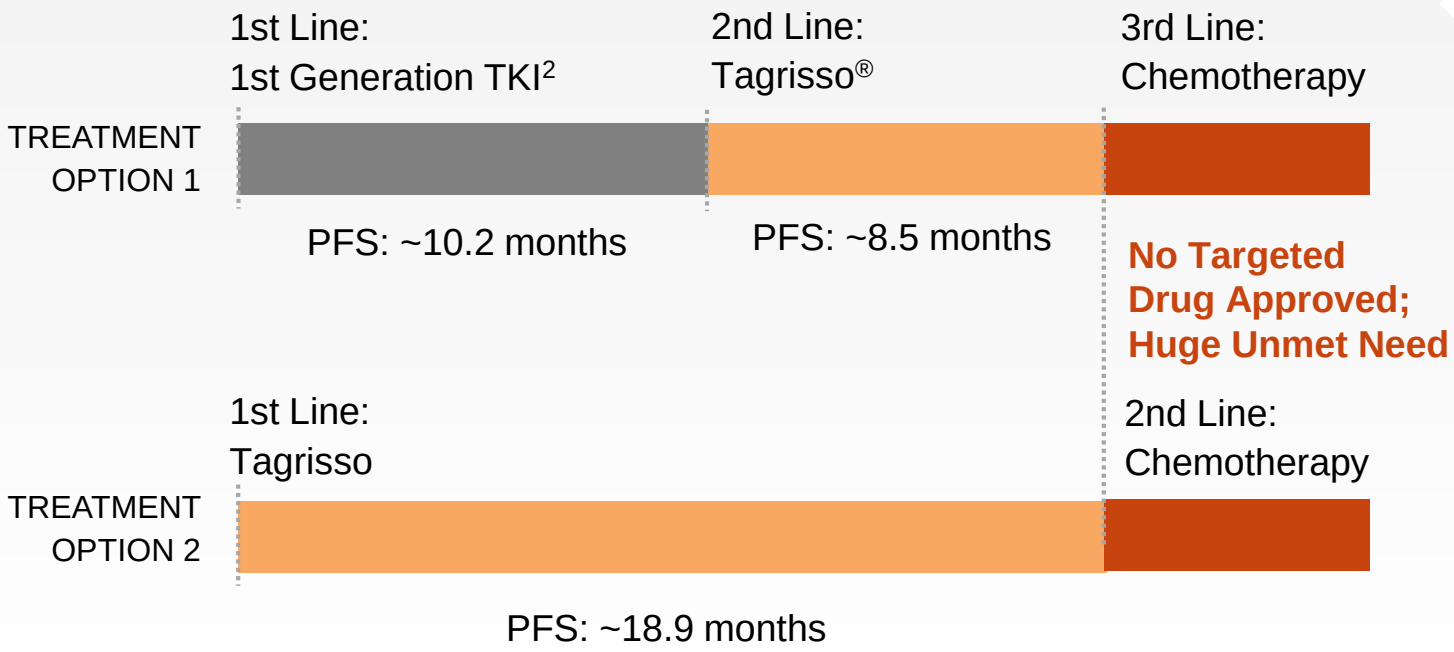
expected to exceed
$20 billion by 2022

(CAGR: 13%)[1]



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

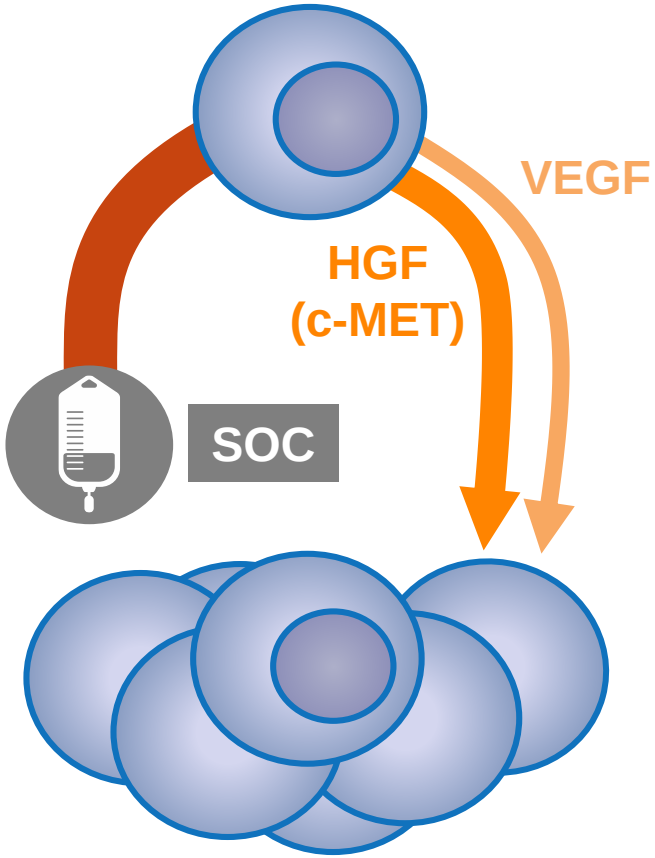
Unmet Need in EGFR-mutated NSCLC



- Lung cancer is highest mortality cancer worldwide
- Activating EGFR mutations are found in ~40% (Asia), ~20% (US), and ~15% (EU)[1]
- Nearly all NSCLC patients will ultimately relapse on SOC, and after resistance emerges there are very limited treatment options
- **No targeted drug approved after patients progress under Tagrisso® treatment**

1. Tang et al Oncotarget 2016 . 2. PFS Based data from the FLAURA and AURA3 study

HGF & VEGF Play an Important Role in Adaptive Resistance



VEGF

Inhibition of VEGF pathway inhibition has proven efficacy in NSCLC

- In combination with chemotherapy[1]
- In combination with EGFR TKI[2]

HGF

HGF/c-Met pathway may be involved in resistance

- Alterations and upregulation of HGF & c-Met signaling frequency found in resistant NSCLC[3,4]
- Inhibition of cMET/HGF shown to restore sensitivity to EGFR-TKIs in EGFR-mut NSCLC cell lines [5,6]

1. Reck M, et al. J Clin Oncol 2009. 2. Seto T. et al, Lancet Oncol 2014 3.Chabon JJ, et al. Nat Commun 2016
4. Zucali PA et al. Ann Oncol 2008, 5. Yamada T. et al. Clin Can Res 2010; 6. Wang W. et al. Can Res 2012

MP0250 Phase 2 Study in NSCLC

Collaboration with AstraZeneca for Tagrisso® supply

PATIENT POPULATION
Patients with EGFRmut NSCLC who have failed to respond to Tagrisso®

TREATMENT REGIMEN
Tagrisso® plus MP0250

START Q2 2018	DOSE ESCALATION (cohort 1)	DOSE ESCALATION (cohort 2)	DOSE EXPANSION	EXPECTED MILESTONES
DESIGN	n ≥ 6 patients 8 mg/kg every 3 weeks	n ≥ 6 12 mg/kg	n ≥ 28 at recommended dose of either 8 or 12 mg/kg	
STATUS	▪ Recruitment ongoing ▪ So far, 7 patients on study		▪ Accelerated recruitment possible, following decision on recommended dose	first efficacy data 2019

Study details: clinicaltrials.gov/NCT03418532. Cut-off November 12th 2018

MOLECULAR partners

Unique Potential of MP0250 in EGFR-mut NSCLC

Global market value (EGFR NSCLC):

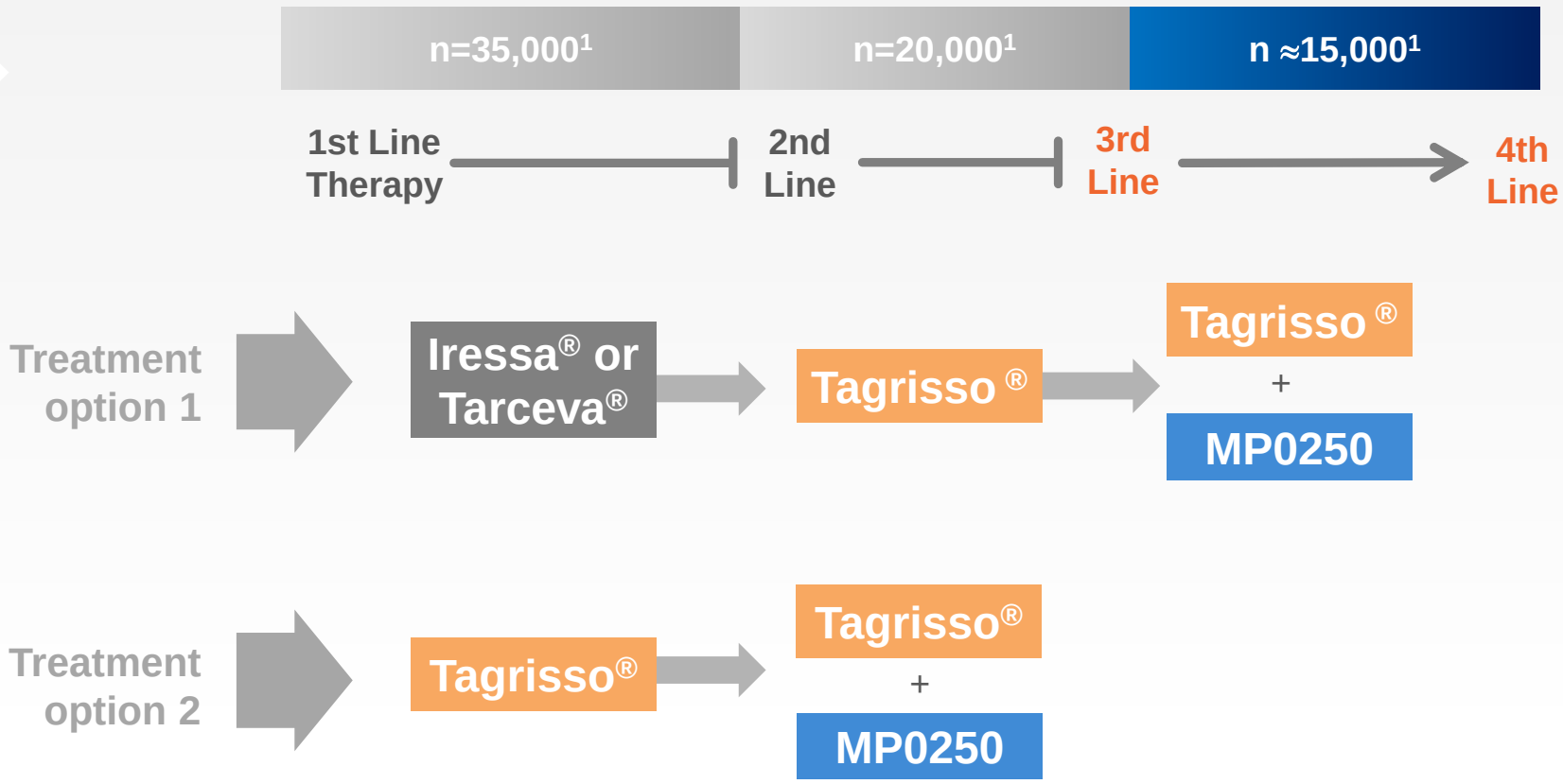
ca. $2.8 billion,

expected to exceed

$3.5 billion by 2023

(CAGR: 5%)[1]

No targeted drug approved after patients progress under Tagrisso® treatment



1. Including actively treated, Stage IIIb and Stage IV prevalent cases in US/5EU/JP. Datamonitor, August 2018

Summary & Outlook

- HGF/VEGF are very important causes of the development of treatment failures. Hence, we see clinical development opportunities for MP0250 beyond MM and EGFR-mut NSCLC.
- MP0250 has shown encouraging efficacy and value to patients in MM. This forms the base for our refined development strategy.
- MP0250 for NSCLC trial is progressing on track with first efficacy data expected in 2019.

Therapeutic Options for Patients with Relapsed/Refractory Multiple Myeloma

Robert Z. Orlowski, M.D., Ph.D.

Florence Maude Thomas Cancer Research Professor

Chair, *ad interim*, Department of Lymphoma/Myeloma

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THE UNIVERSITY OF TEXAS
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Making Cancer History®

Outline

1. MM Overview
2. Evolution of standard of care in MM
3. Unmet need
4. New approaches in relapsed and refractory MM
5. Rationale for targeting HGF/VEGF

Myeloma Statistics

- 2nd most common heme malignancy
  - NHL 74, 680 vs. MM 30,770 vs. CLL 20,940 in 2018 in USA
- Both incidence & prevalence are rising
  - 30,770 cases in 2018 vs. 9,600 in 1983; due to aging populace
- More commonly seen in developed nations
  - 3.3/100,000 vs. 0.9 in less developed areas
- Impacts more men, and patients of African descent
  - ~1.3:1.0 male/female ratio
  - 4.7/100,000 Caucasian vs. 10.2 African American men

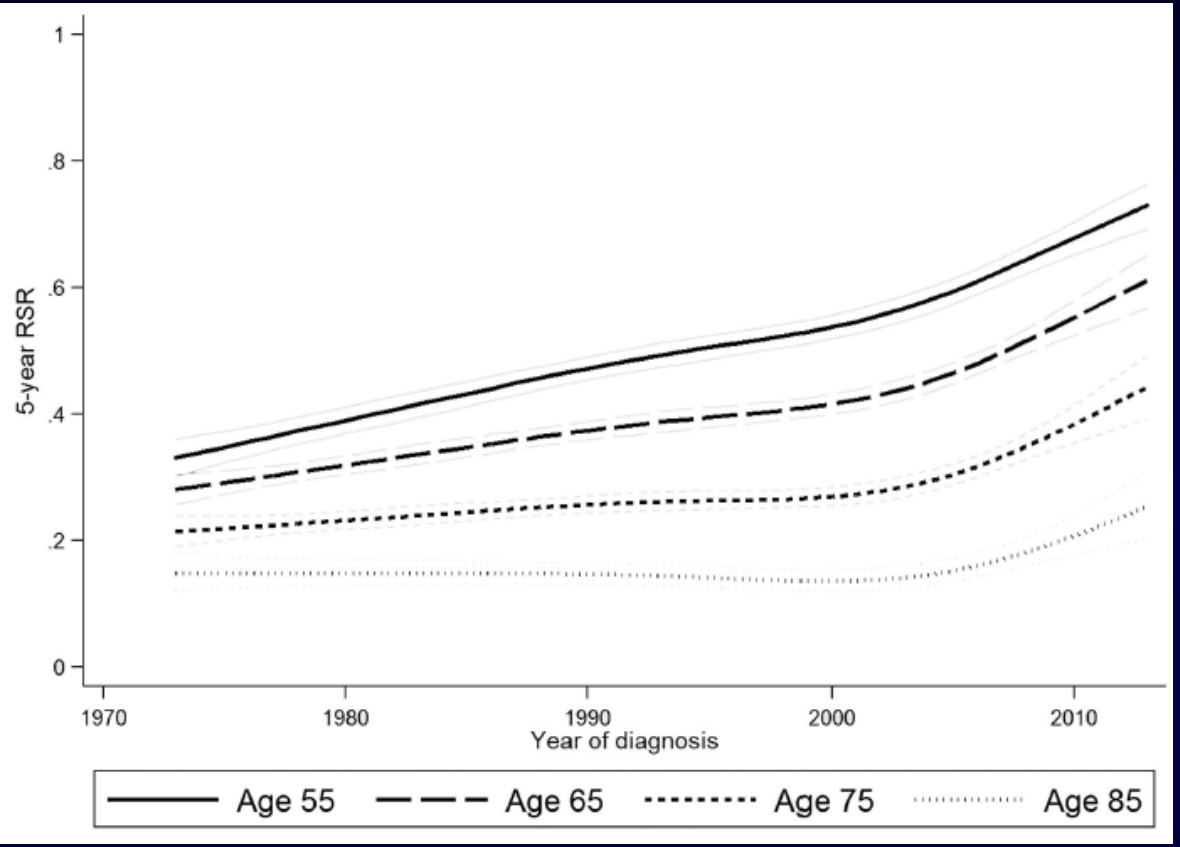
Siegel, RL et al. CA Cancer J Clin. 68:1, 2018.

Change From 2010 - 2030

- #1 : Stomach (↑67%); #2 : Liver (↑59%)
- #3 : Myeloma (↑57%)
- Tied for #12 : Non-Hodgkin lymphoma (↑44%)
- #21 (out of 23) : Hodgkin disease (↑21%)

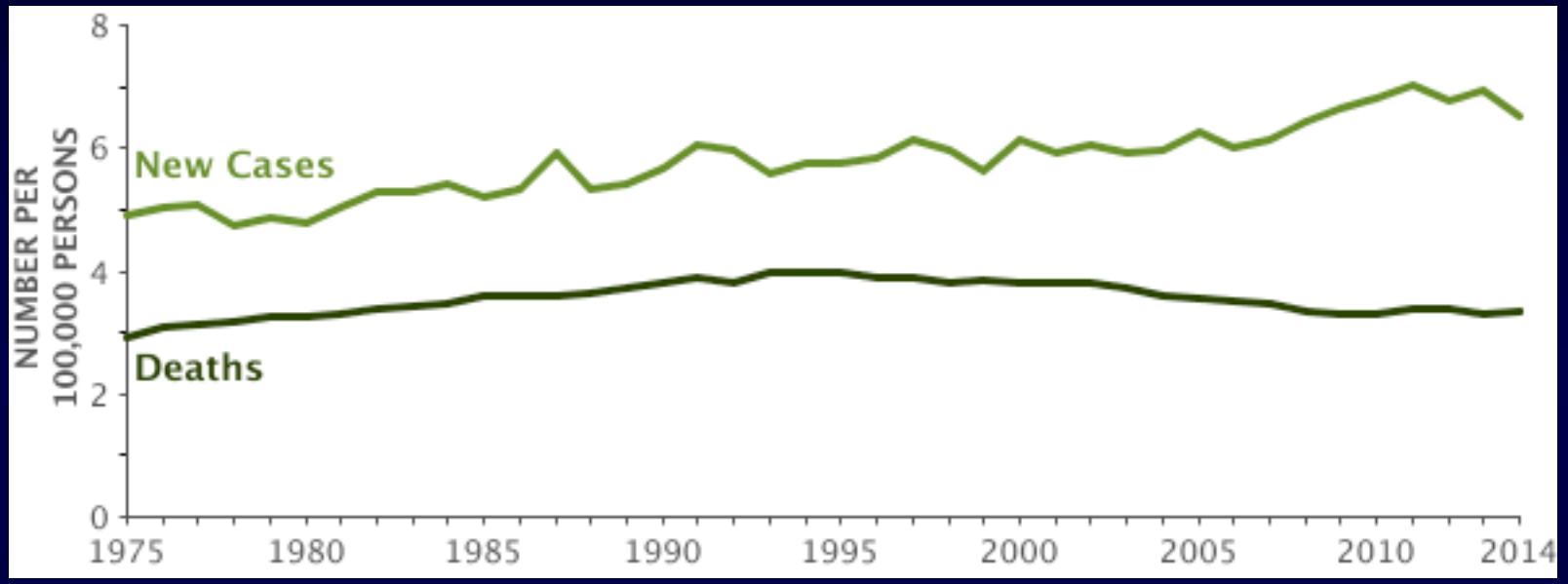
Smith BD, et al. J Clin Oncol. 27: 2758, 2009. Siegel RL *et al*. CA Cancer J Clin. 67: 7, 2017.

Improvements in Survival



Thorsteinsdottir, S et al. Haematologica 103: e412, 2018.

Still Work to be Done



https://seer.cancer.gov/

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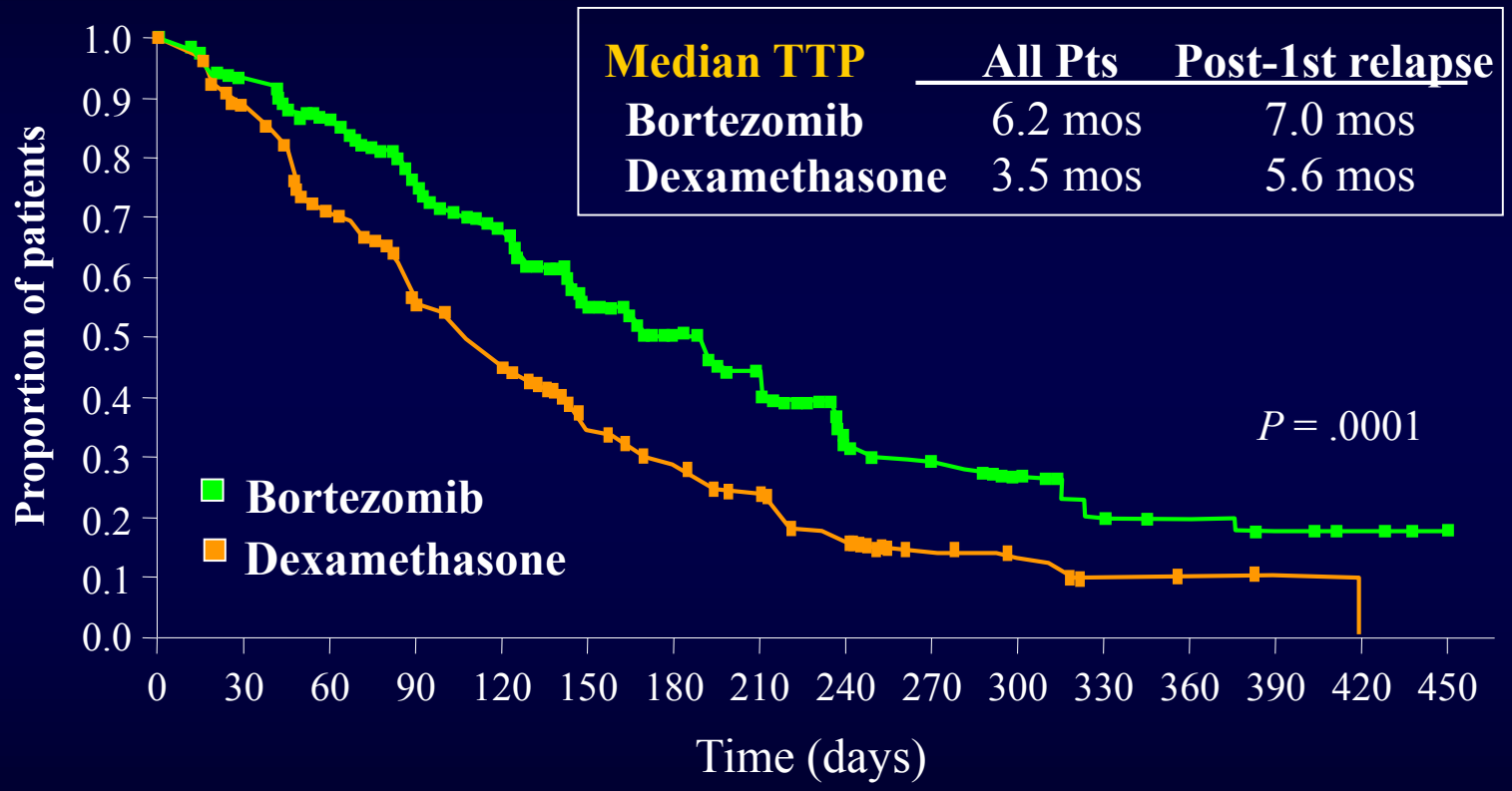
The first breakthrough: Bortezomib

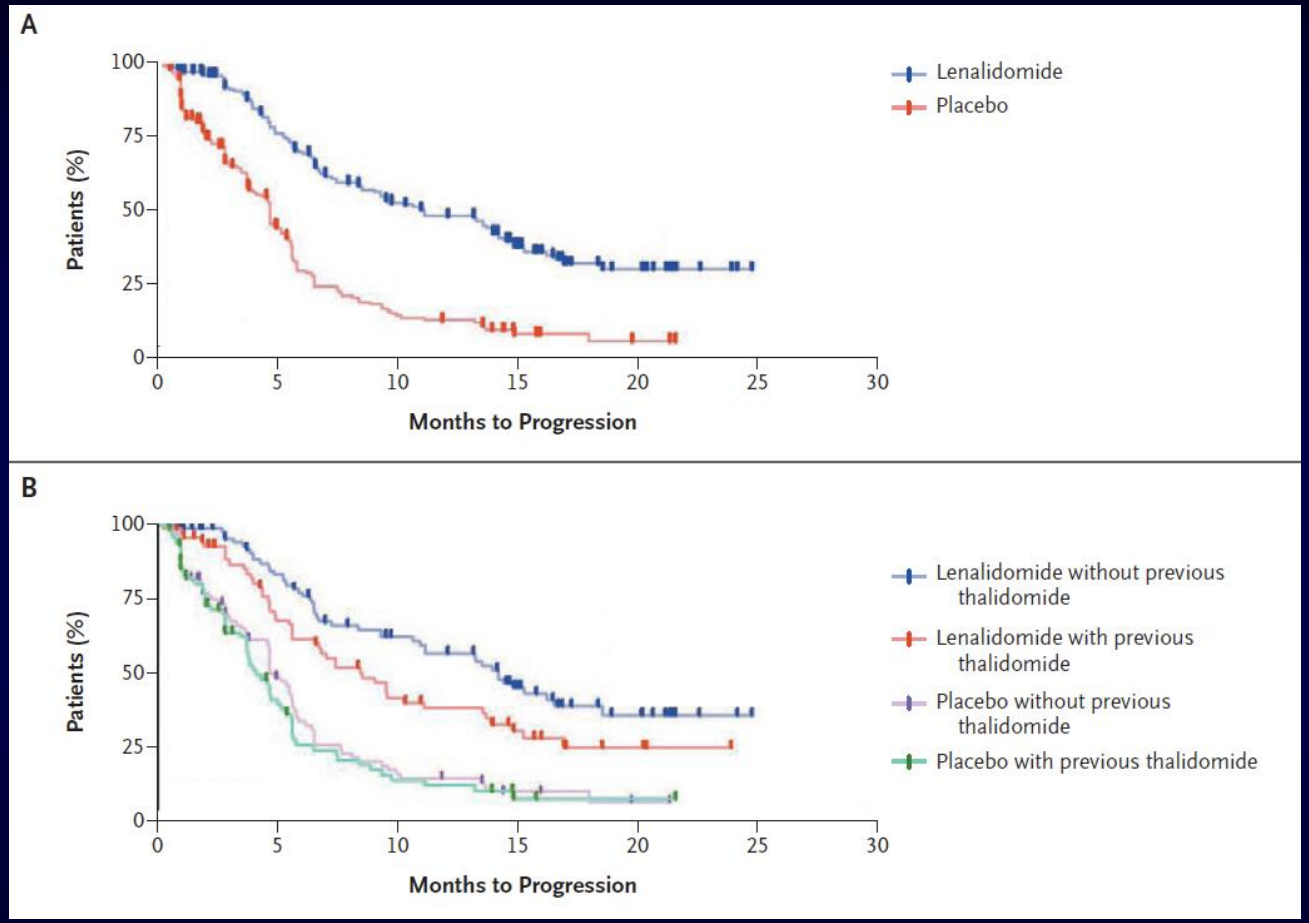
78% improvement in median time-to-progression



APEX: Bortezomib vs. Dex

Richardson, PG et al. N Engl J Med. 352:2487, 2005.

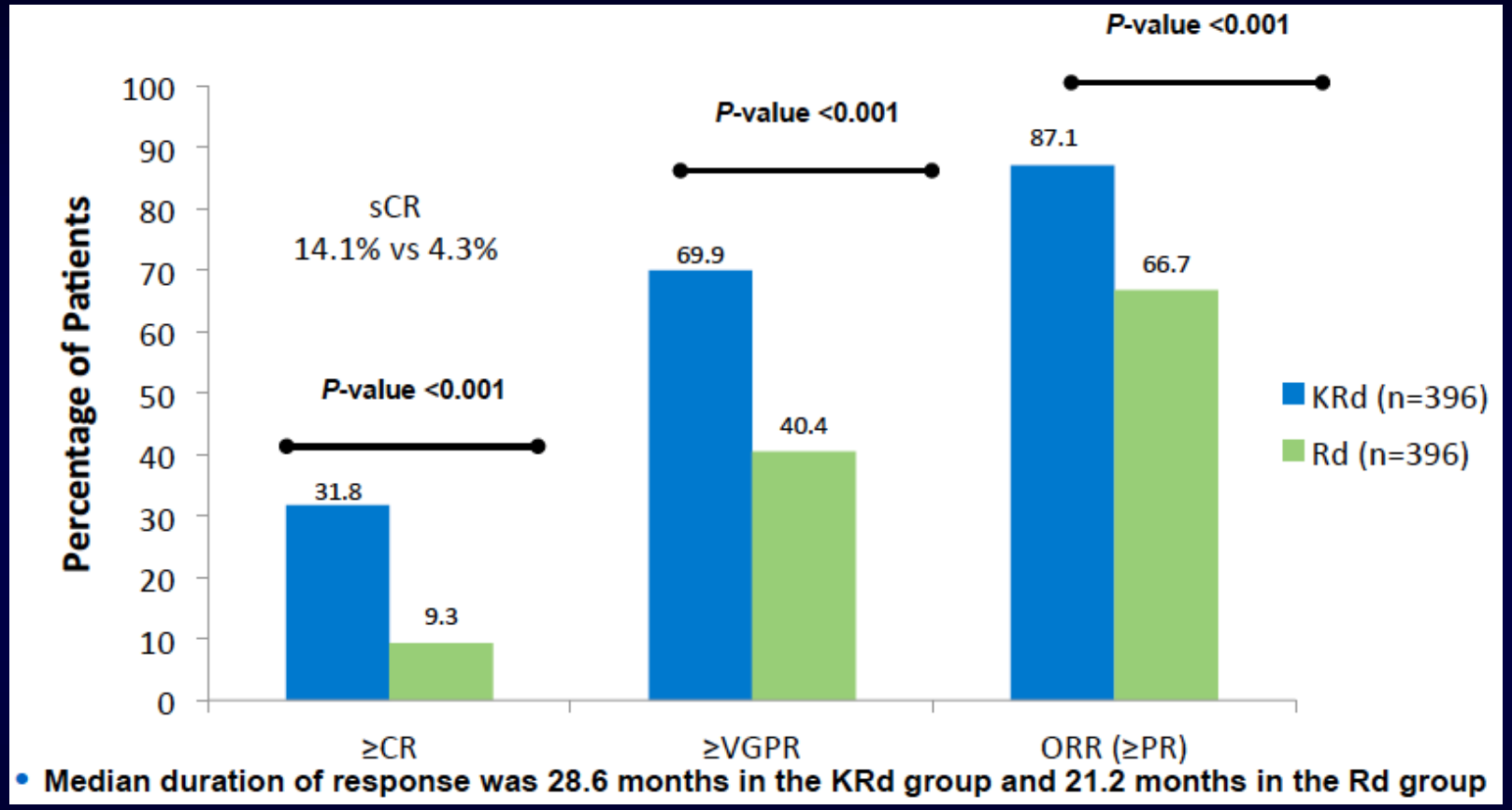
The second breakthrough: Lenalidomide



Len/Dex vs. Dex

Weber, DM et al. N. Engl. J. Med. 357:2133, 2007.

Next step: Triplets become more important



ASPIRE Study : Response Rates

Stewart, AK et al. N Engl J Med. 372:142, 2015.

Next step: Triplets become more important

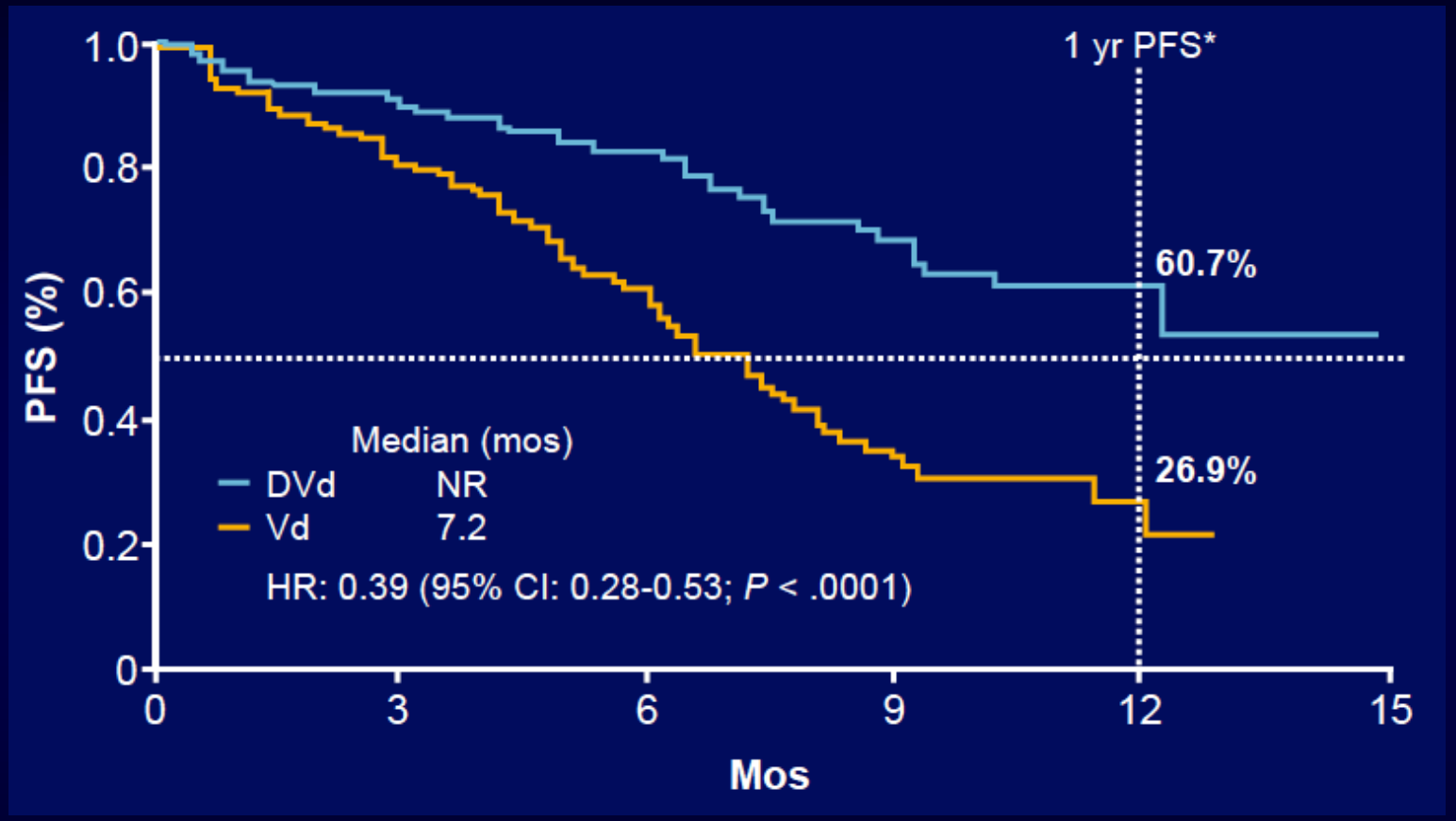
Results: Key Efficacy Data	IRd (n = 362) (%)	Placebo Rd (n = 360) (%)	HR (95% CI)/ P-value
Median PFS, mo	20.6	14.7	0.742 (0.587, 0.939)/ *P*= 0.012
Confirmed ORR, %	78.3	71.5	0.035
CR +VGPR, %	48.1	39.0	0.014
CR	11.7	6.6	0.019
PR	66.7	64.9	-
VGPR, %	36.4	32.3	-
Median TTR, mo	1.1	1.9	-
Median DOR (≥ PR), mo	20.5	15.0	-
Median TTP, mo	21.4	15.7	0.712 / *P*=0.007

* Patients received a median of 13 (1-26) vs. 12 (1-25) cycles of IRd vs. Rd; 55% and 52 patients remain on treatment.

TOURMALINE1: Key Efficacy Data

Moreau, P et al. N Engl J Med. 374:1621, 2016.

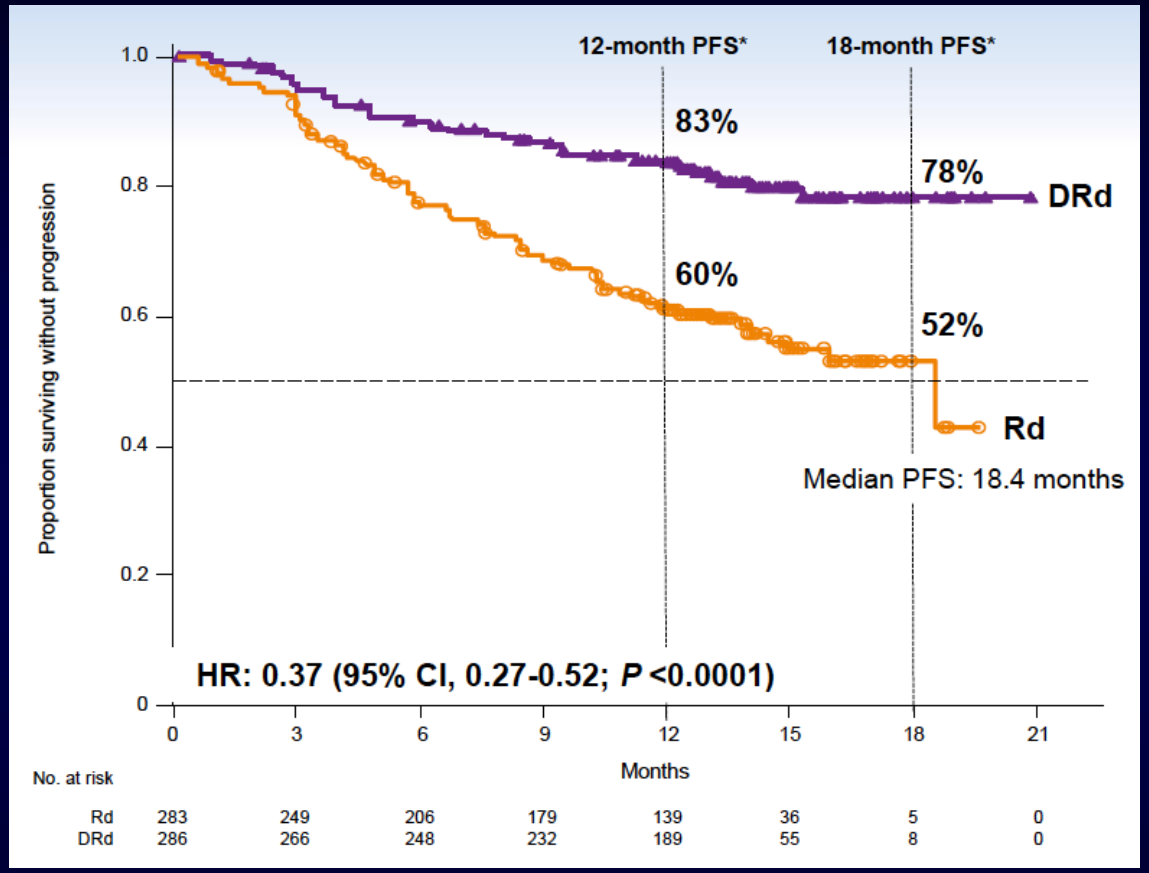
Next step: Antibodies



Daratumumab + Bortez/Dex

Palumbo, A et al. N Engl J Med. 375:754, 2016.

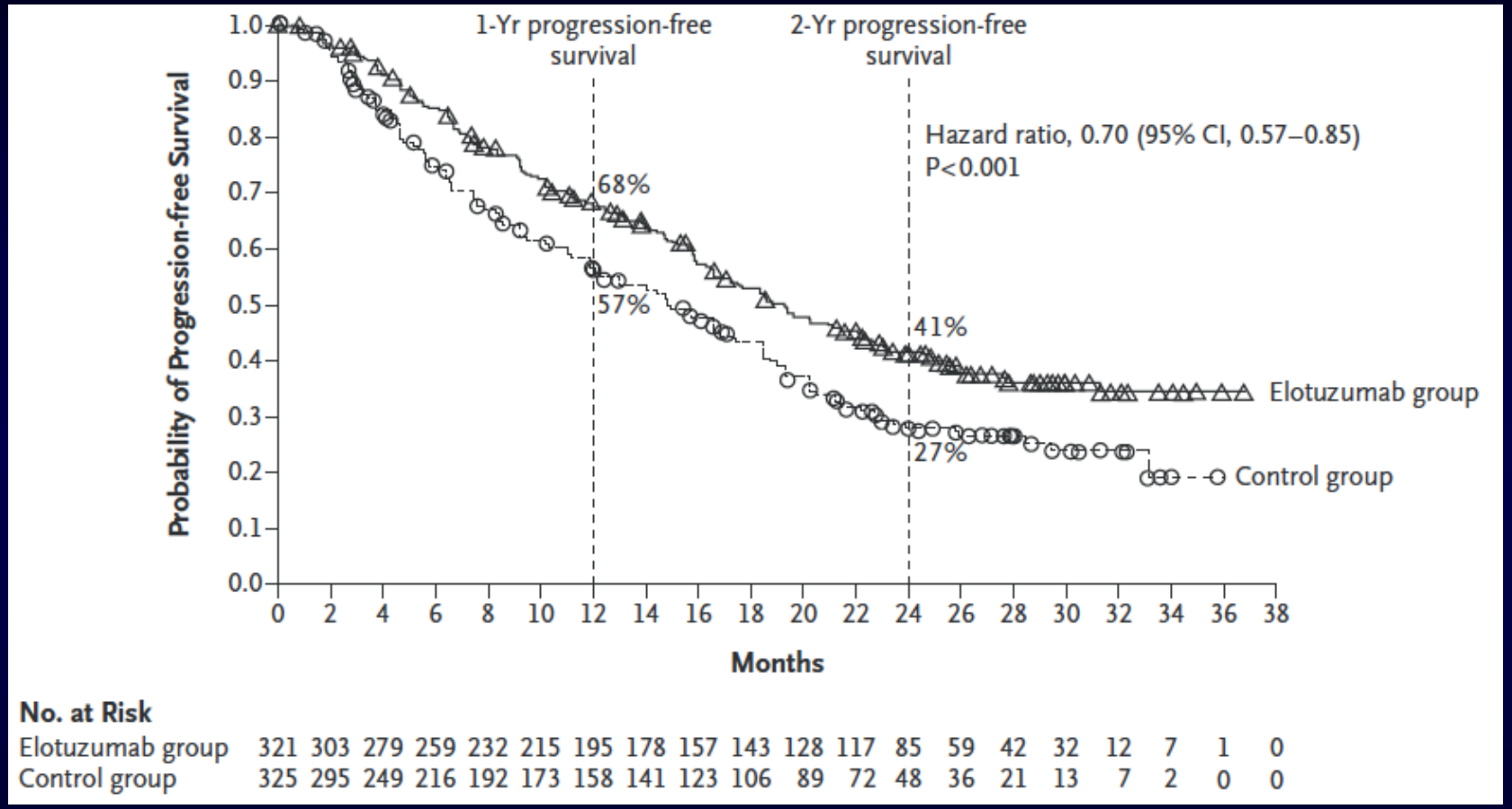
Next step: Antibodies



Daratumumab + Len/Dex

Dimopoulos, MA et al. N Engl J Med. 375 :1319, 2016.

Next step: Antibodies



ELOQUENT2 : PFS Curves

Lonial, S et al. N Engl J Med. 373:621, 2015.

Summary

- PIs and IMiDs are more often used simultaneously rather than sequentially
- Drugs that were previously used in relapsed patients have moved to first and second line (carfilzomib, pomalidomide)
- Antibodies have moved to earlier lines
- While our initial treatment of MM has become more effective, treatment of relapsed/refractory patients is becoming more challenging

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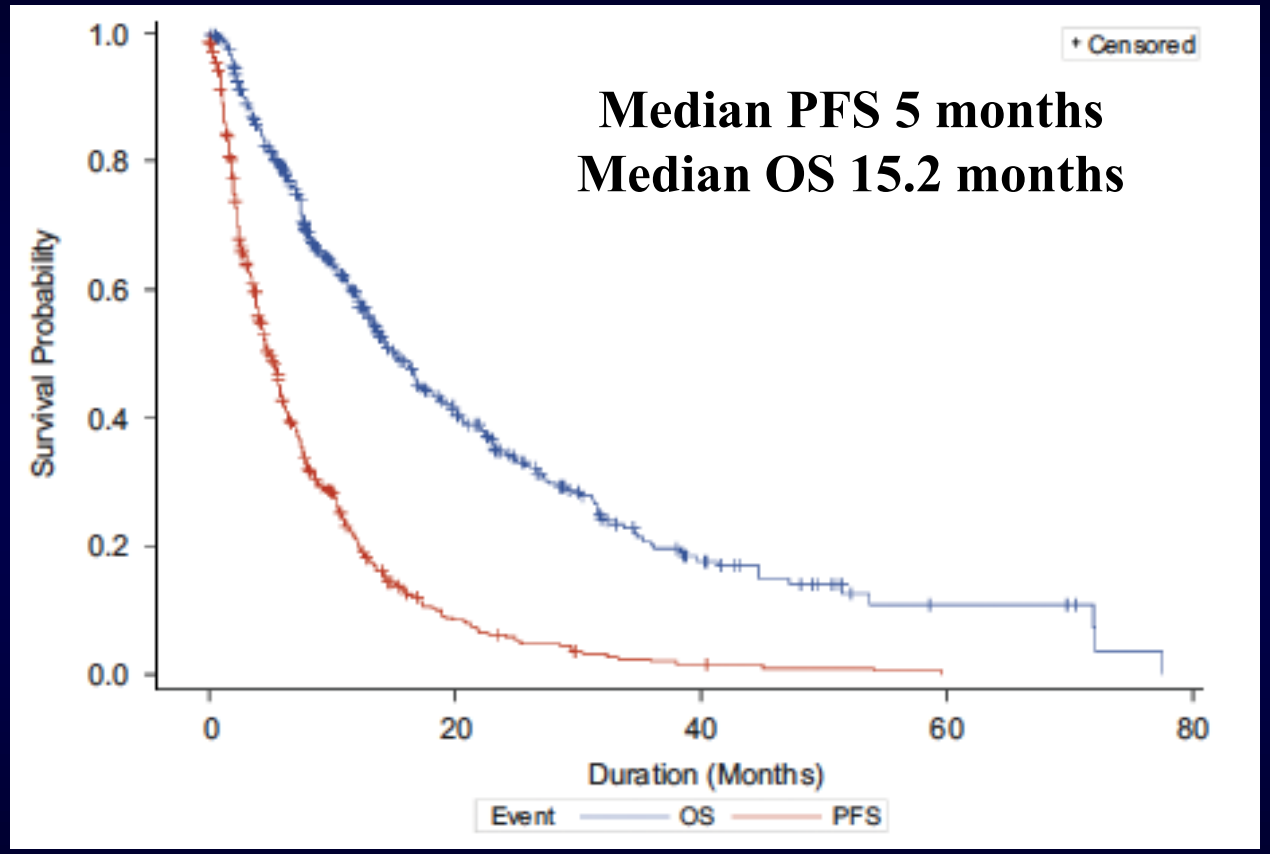
Unmet Need in PI/IMiD Refractory Patients



- PI/IMiD Refractory Outcomes

Kumar, SK et al. Leukemia 31: 2443, 2017.

Unmet Need in PI/IMiD Refractory Patients

Table 2. Efficacy parameters

	Intent-to-treat		LEN refractory		LEN and BORT refractory	
	POM+LoDEX (n = 113)	POM alone (n = 108)	POM+LoDEX (n = 88)	POM alone (n = 86)	POM+LoDEX (n = 70)	POM alone (n = 66)
Median PFS, months	4.2	2.7	3.8	2.2	3.8	2.0
Median OS, months	16.5	13.6	16.0	12.0	13.4	12.5
ORR (≥PR), %	33	18	30	21	31	21
≥MR, %	45	31	42	31	46	33
CR	3	2	0	1	0	1
PR	30	16	30	20	31	20
MR	12	13	13	11	14	12
SD, %	37	48	41	47	39	42
Median time-to-response (≥PR), months	1.9	4.3	1.9	4.6	1.6	4.6
Median duration of response (≥PR), months	8.3	10.7	7.7	8.8	6.5	11.4
Median duration of ≥MR, months	7.7	7.4	6.2	6.7	6.2	6.7

CR, complete response; MR, minimal response.

- Pomalidomide : Response Rates

Richardson, PG et al. Blood 123:1826, 2014.

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Selinexor + Dexamethasone

Table 2. Overall Response Rate

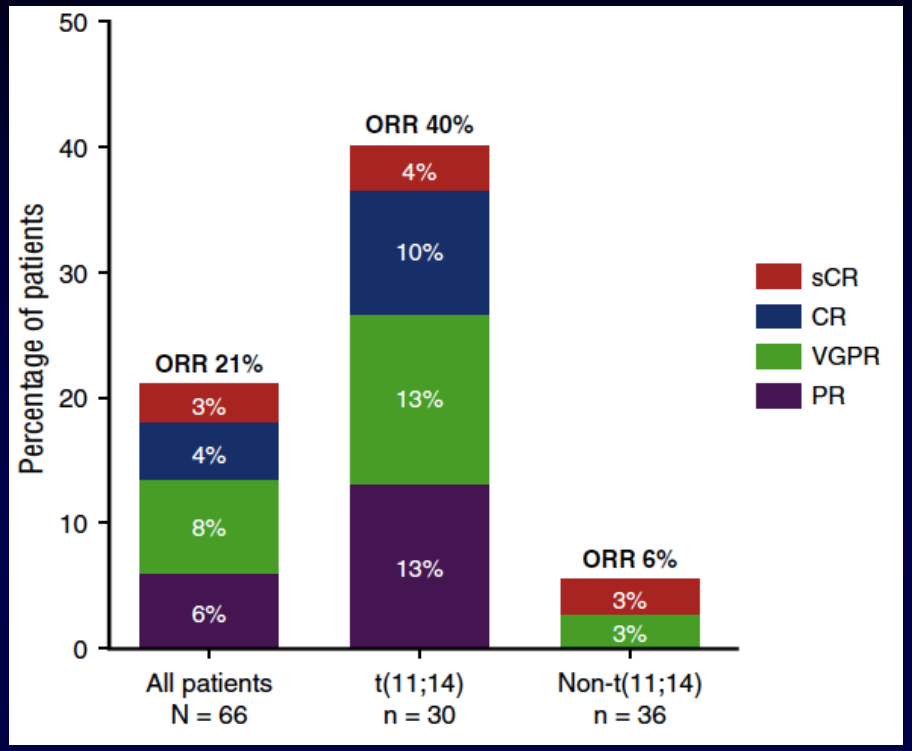
Group	No. of Patients*	No. of Patients (%)							
		ORR	CBR	VGPR	PR	MR	SD	PD	NE
Overall	78	16 (21)	26 (33)	4 (5)	12 (15)	10 (13)	27 (35)	21 (27)	4 (5)
Quad-refractory disease	48	10 (21)	14 (29)	2 (4)	8 (17)	4 (8)	21 (44)	11 (23)	2 (4)
Penta-refractory disease	30	6 (20)	12 (40)	2 (7)	4 (13)	6 (20)	6 (20)	10 (33)	2 (7)
6 doses per cycle	51	10 (20)	15 (29)	3 (6)	7 (14)	5 (10)	21 (41)	12 (24)	3 (6)
8 doses per cycle	27	6 (22)	11 (41)	1 (4)	5 (19)	5 (19)	6 (22)	9 (33)	1 (4)
Standard risk	22	4 (18)	9 (41)	1 (5)	3 (14)	5 (23)	11 (50)	2 (9)	—
High risk	17	6 (35)	9 (53)	1 (6)	5 (29)	3 (18)	6 (35)	2 (12)	—
del(17p)	8	3 (38)	5 (63)	1 (13)	2 (25)	2 (25)	2 (25)	1 (12)	—
t(4;14)	4	2 (50)	2 (50)	—	2 (50)	—	2 (50)	—	—
t(14;16)	1	1 (100)	1 (100)	—	1 (100)	—	—	—	—
del(17p) and t(4;14)	3	—	1 (33)	—	—	1 (33)	2 (67)	—	—
del(17p) and t(14;16)	1	—	—	—	—	—	—	1 (100)	—

NOTE. Response rates are presented as assessed by the independent review committee.
Abbreviations: CBR, clinical benefit rate; MR, minimal response; NE, nonevaluable; ORR, overall response rate; PD, progressive disease; PR, partial response; SD, stable disease; VGPR, very good partial response.
*One patient did not have measureable myeloma at baseline and was, therefore, not included in the analysis of response.

- ORR 21%, including quad-/penta-refractory
- Toxicities : Cytopenias, hyponatremia, fatigue

Vogl, DT et al. J Clin Oncol. 36: 859, 2018.

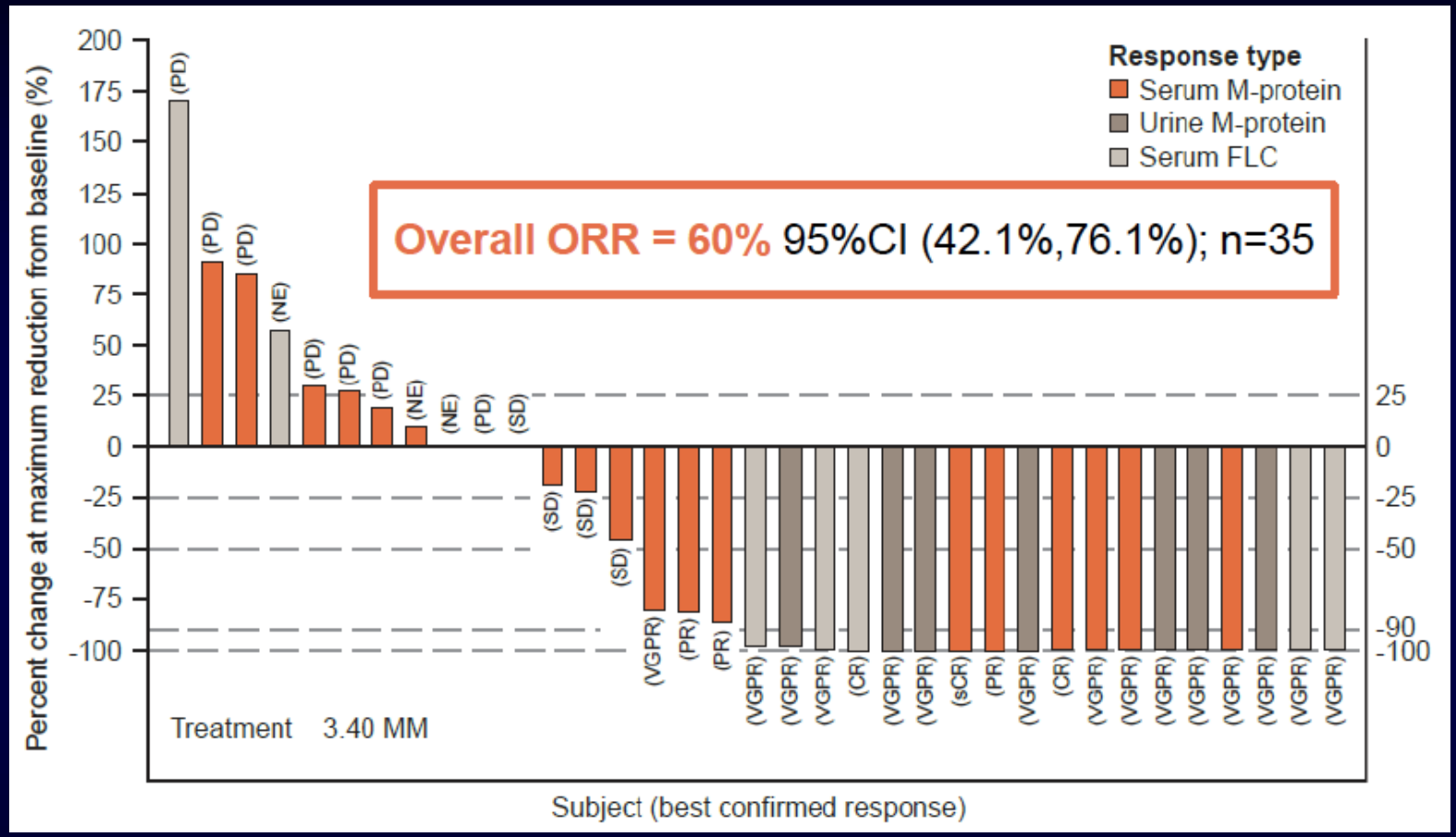
Venetoclax



Group	Median TTP (95% CI)	Median DOR (95% CI)
t(11;14)	6.6 (3.9, 10.2)	9.7 (6.3, –)
Non-t(11;14)	1.9 (1.2, 2.3)	NE

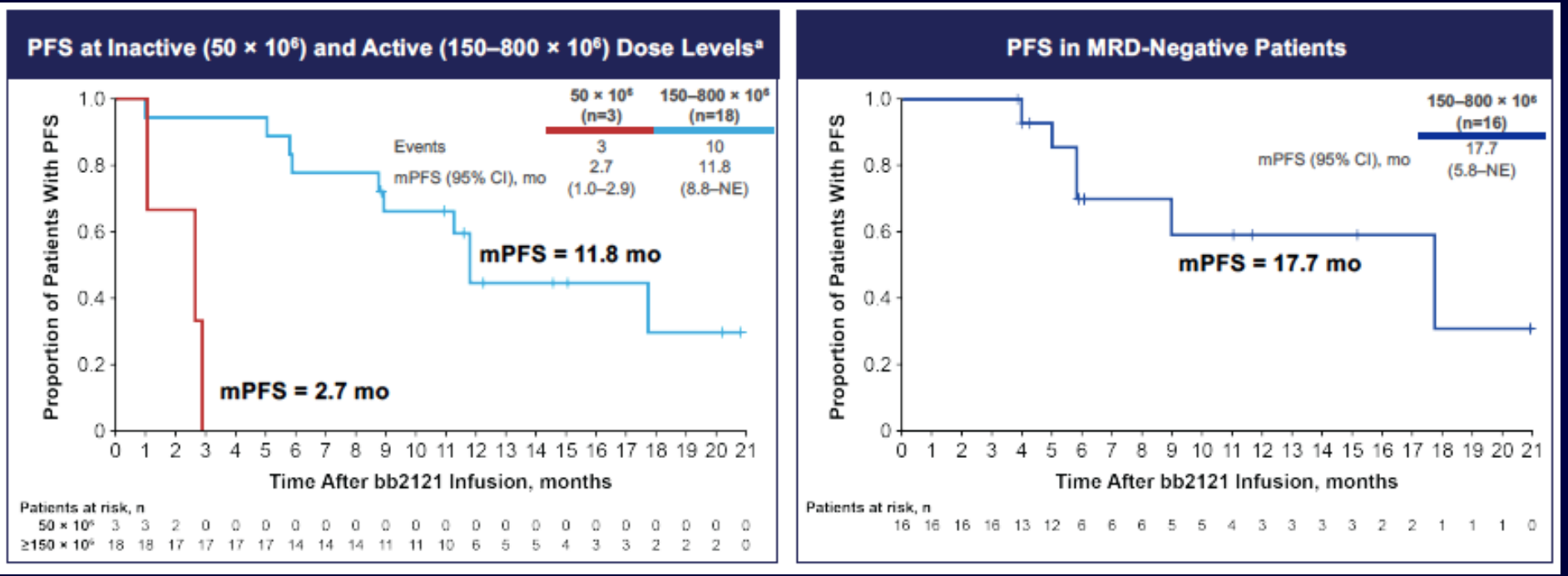
Kumar, S et al. Blood 130: 2401, 2017.

GSK2857916 : BCMA ADC



Trudel, S et al. ASH Abstract 741, 2017.

bb2121 : Response Durability



Raje, N et al. 2018 ASCO Abstract # 8007.

Summary

- Early use of novel agents is increasing, making relapsed & refractory disease more challenging
- Patients with myeloma that is relapsed and refractory to PIs and IMiDs have poor outcomes
- The next crop of novel agents are showing some activity in this setting, but are far from curative, and are associated with high cost and/or high toxicity profiles

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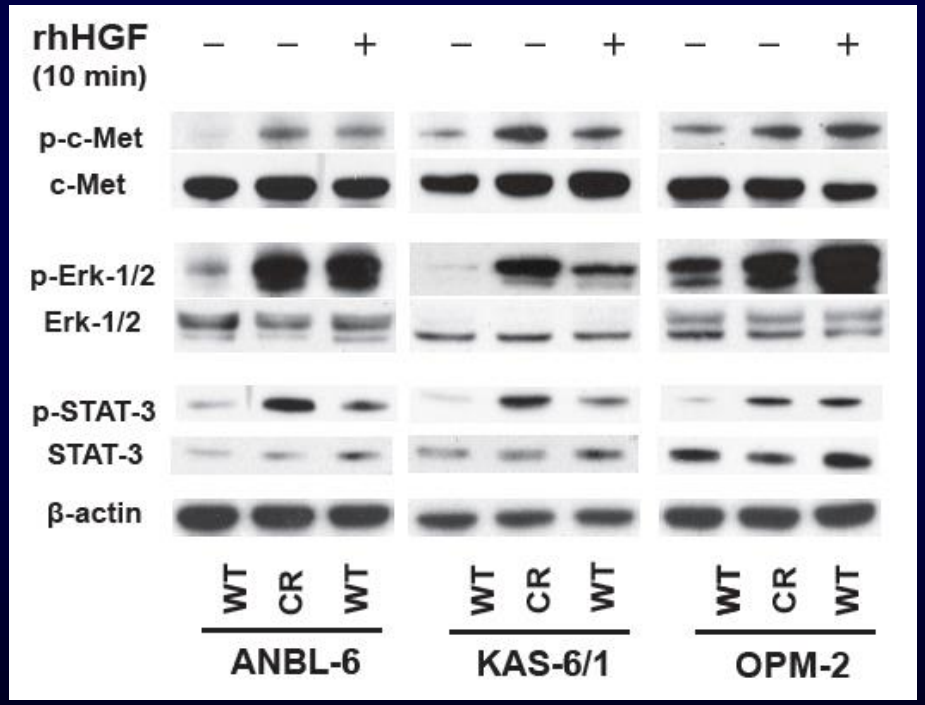
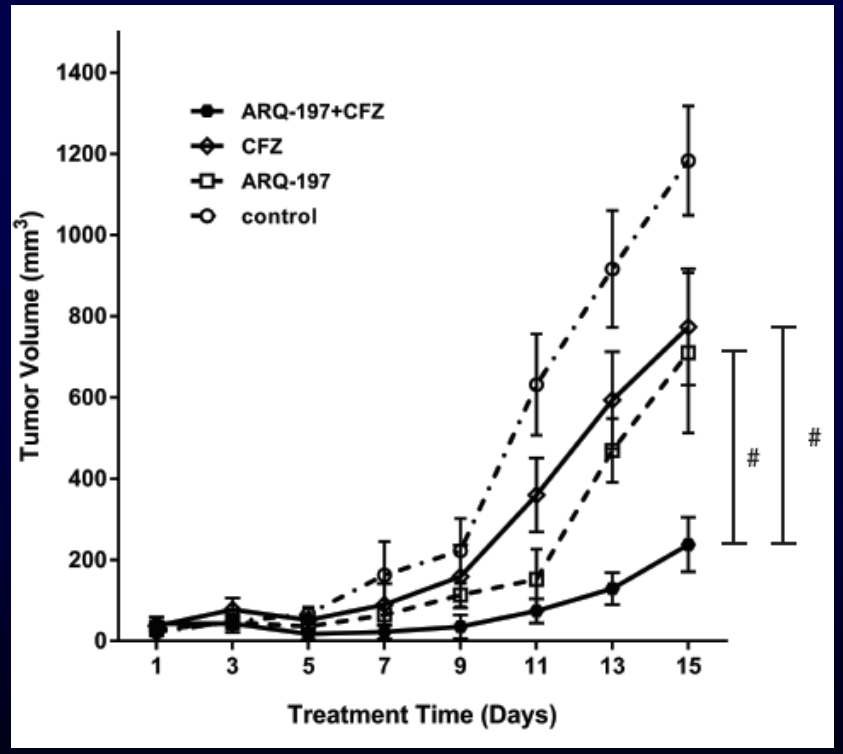
Rationale for Targeting HGF

- Signaling through HGF/c-MET is associated with drug resistance, including to PIs



Rationale II

- Blockade of the HGF/c-MET axis is associated with enhanced sensitivity to bortezomib and carfilzomib



Conclusions

- Approaches that block HGF/c-MET signaling are a promising option to extend the usefulness of bortezomib- and carfilzomib-based regimens
- These could delay the time until the need to start an alternative therapy, and thereby both improve patient outcomes and save healthcare resources
- Induction of objective response in RR MM could work synergistically with other approaches (e.g. CAR-T) that may be more effective with low tumor load

Questions?

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Takeaways

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Our Accelerating Progress

2018 Achievements

- Abicipar phase 3 data
- MP0250 initial activity in MM; NSCLC ongoing
- Second oncology DARPin® in the clinic (MP0274)
- IO DARPin® portfolio progress → 10 abstracts at AACR and SITC
- Strengthening of oncology team

2019 Growth

- MAPLE trial: results with further optimized formulation
- Multiple safety & efficacy readouts in 2019
- Enrollment, initial efficacy in 2019
- Continued expansion and advancement toward the clinic
- Acceleration of clinical activities

Thank you!

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