Making the DARPin® Difference Reality for Patients

Patrick Amstutz, CEO

Presentation: Molecular Partners AG

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Molecular Partners: Who We Are

Teamwork

- Swiss biotech
- 120 team members
- Discovery to Phase 2 (POC)
- Science & patients first

DARPin® Therapies

- Abicipar in Phase 3 (ophtha)
- MP0250 in Phase 2 (onc)
- MP0274 in Phase 1 (onc)
- Broad preclin. I/O portfolio

Long-term Partnerships

- Alliance with Allergan
- Swiss listing (MOLN)
- Cash CHF 141mn*
- Financed well beyond key value inflection points

DARPin® Platform

- DARPin® Difference: unlock novel modes of action
- Proof of Platform in the eye and systemically
- Fast and cost effective drug discovery engine

*As of Dec 31, 2017. I/O, immuno-oncology.

DARPin® is a registered trademark owned by Molecular Partners AG.

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DARPin® Proteins: A Different Class of Therapeutics

Derived from ankyrin repeat proteins which are naturally occurring binding proteins in multifunctional contexts

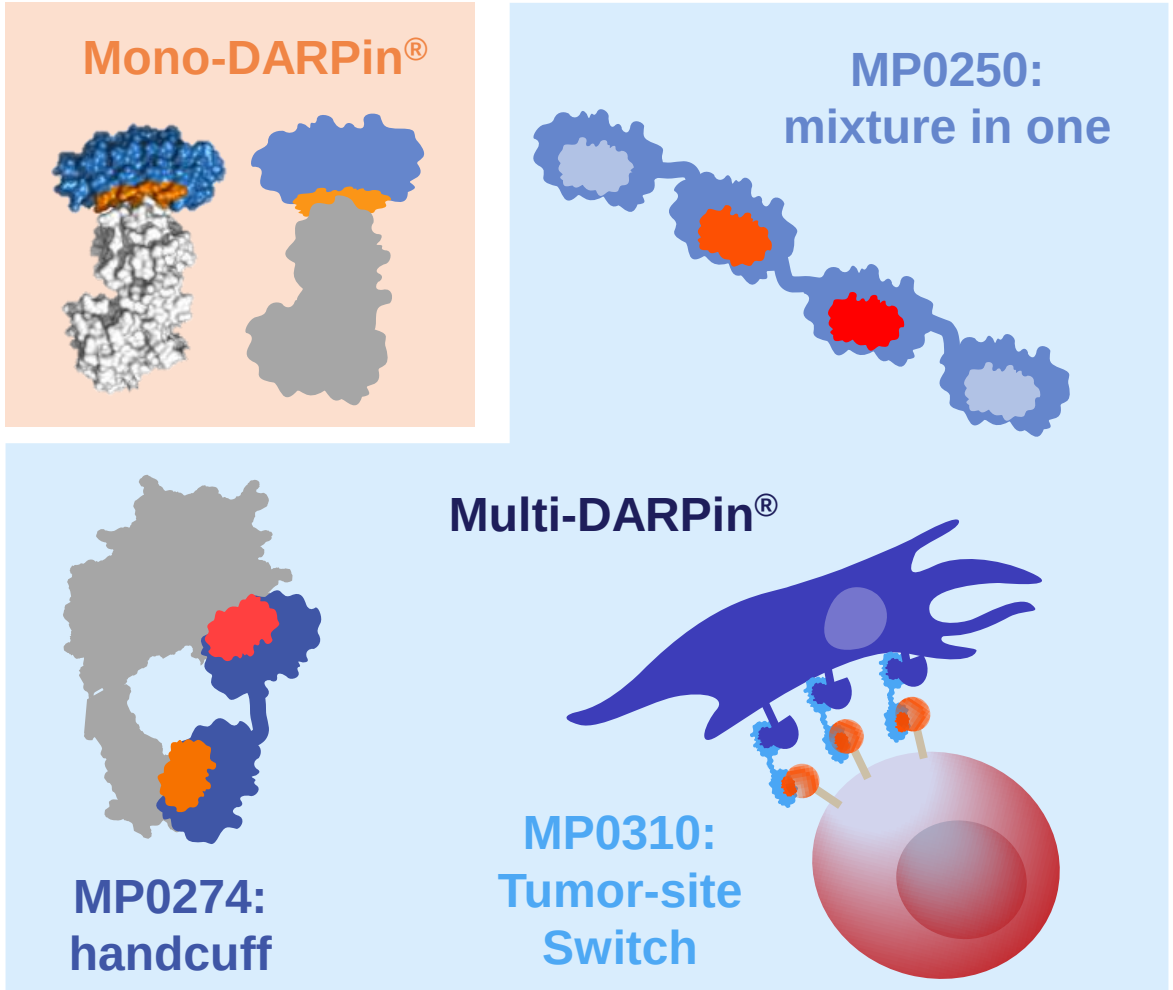
Drug discovery engine

- Mono-DARPin® are selected to a target from large DARPin® libraries
- Fast and cost-effective process
- Highly potent target binding

Flexible architecture

Multi-DARPin® candidates:

- Linked mono-DARPin® domains (≤6 so far)
- Different linkers – short, long, flexibel, rigid,…



DARPin® Difference

Collections of 10,000 multi-DARPin® candidates are screened for **new MoA**

Ideal properties

- Small size, high potency, high stability, high developability as mono & multi-DARPin®

Proof of platform

- Low immunogenicity of multi-DARPin® and long $t_{1/2}$ in bloodstream (14 days) and eye

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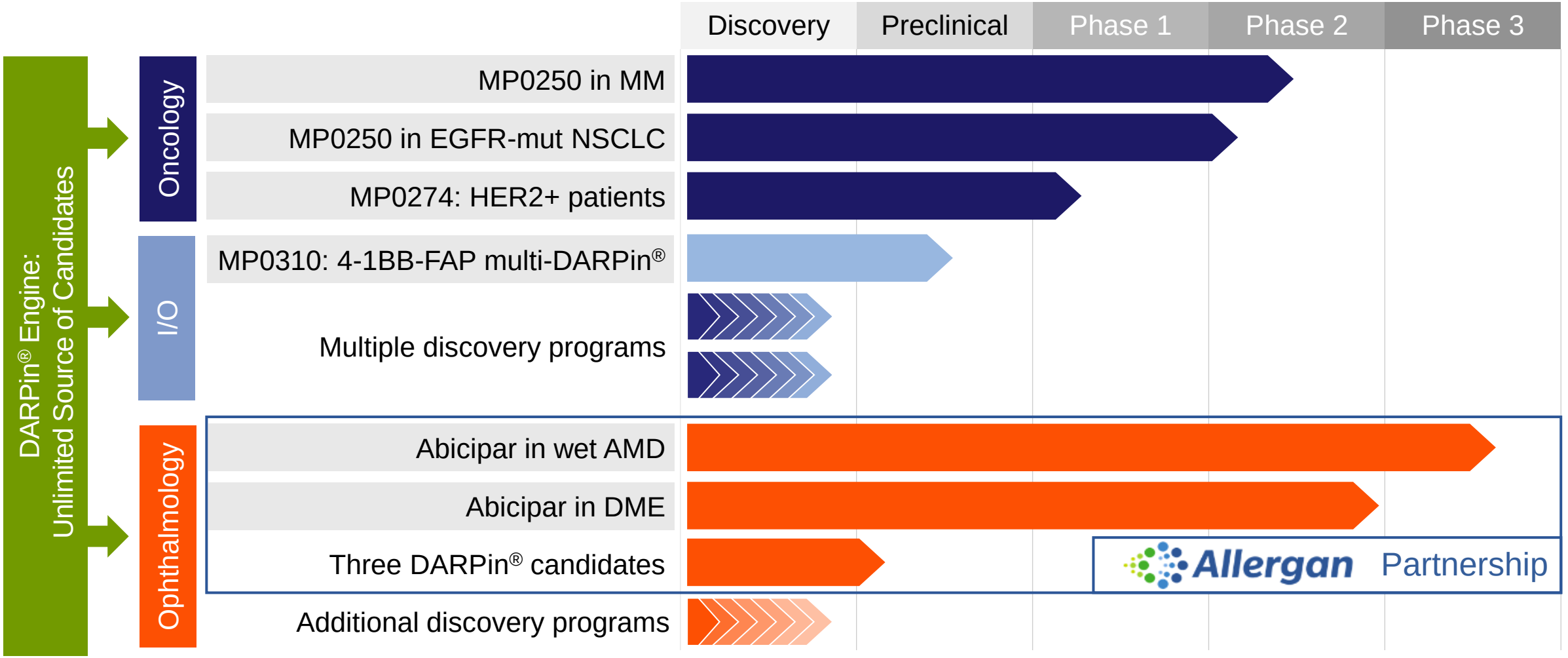
Balanced and Robust Portfolio



AMD, age-related macular degeneration; DME, diabetic macular edema; MM, multiple myeloma; NSCLC, non-small cell lung cancer.

Oncology

MP0250

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MP0250: A First-in-Class Bi-Specific DARPin® Molecule

MP0250

- First bi-specific biologic blocking VEGF and HGF

- VEGF and HGF/c-MET are key escape pathways to SOC treatments
- This escape has been described for liquid and solid tumors
- Blocking the escape pathways may restore activity of SOC drugs

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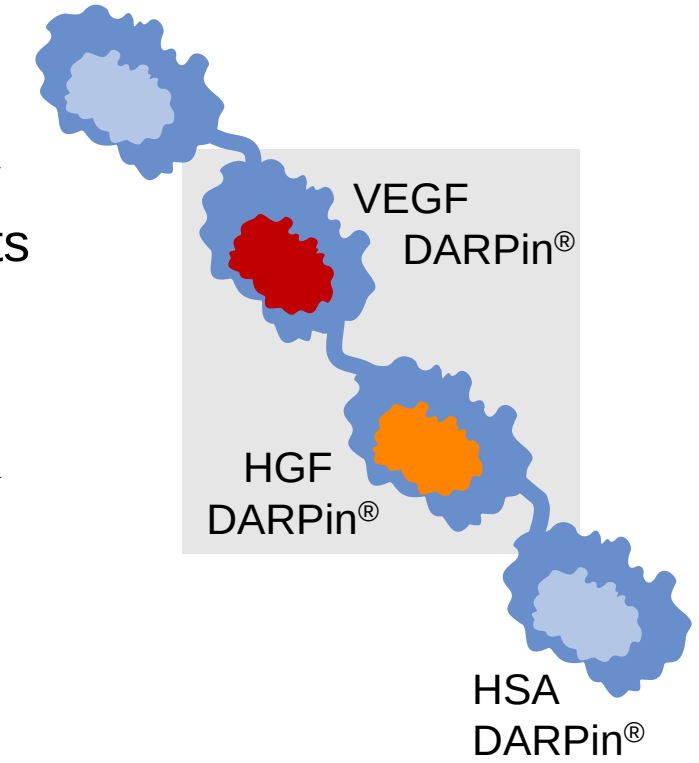
- Our choice of indications
  - Multiple myeloma (MM)
  - EGFR-mutated non-small cell lung cancer (NSCLC)
- Potential in additional indications

- Fully owned by Molecular Partners – IP protection at least until 2036



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

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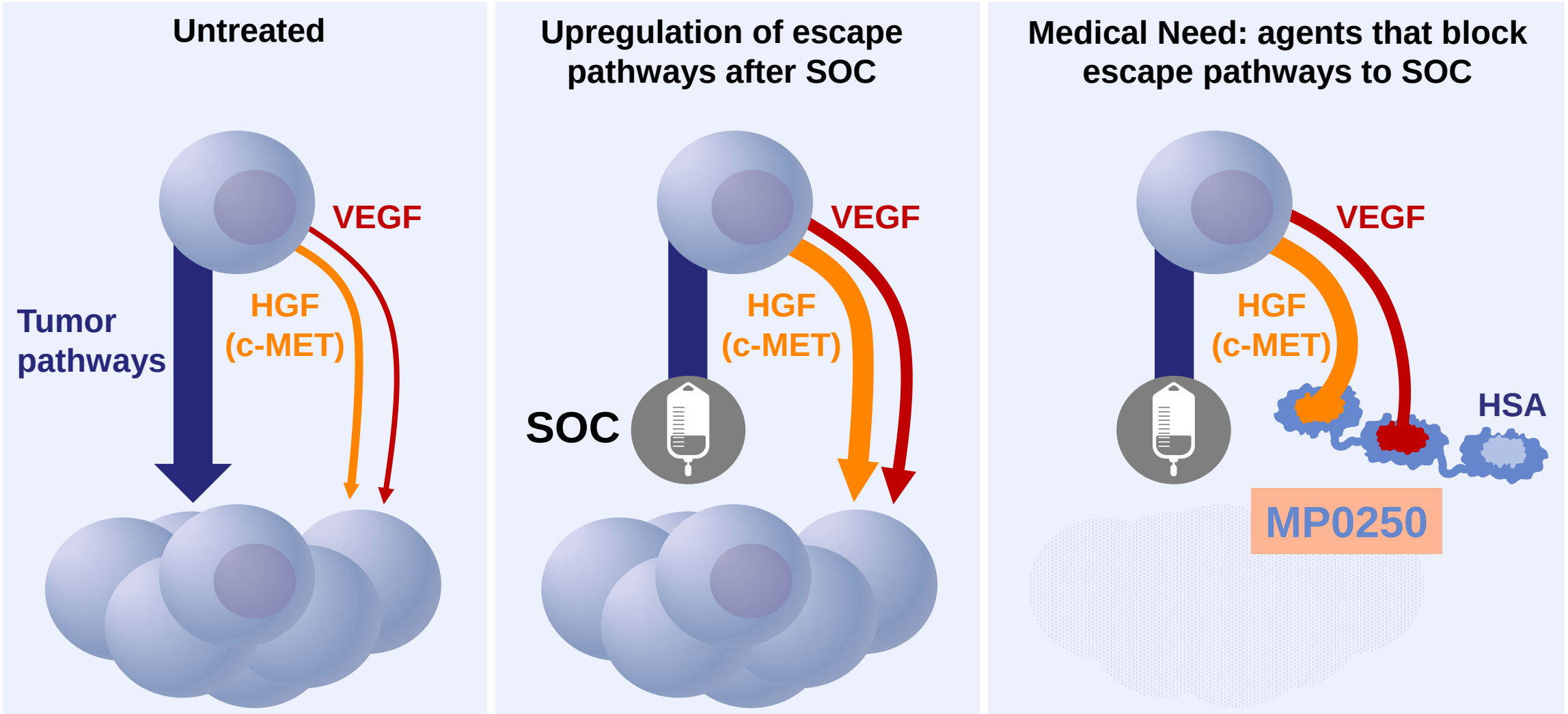
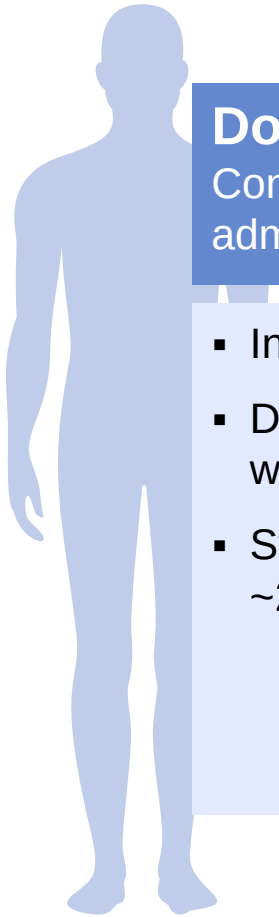
MP0250 Blocks Two Tumor Escape Pathways

MP0250



MP0250 Can Be Dosed Safely, Conveniently and Shows Clear Signs of Efficacy in Phase 1 Study

MP0250



Dosing*
Convenient, flexible administration

- Infusion well tolerated
- Dosing every 2 or 3 weeks possible
- Systemic half-life: ~2 weeks

Exposure
Repeated dosing resulted in good exposure

- Sustained drug exposure throughout treatment periods (max. to date >12 mo)
- Only 1/40 patients developed a relevant titer of ADAs (>10 fold above background)

Safety
Well tolerated

- Most common AE was hypertension, generally well controlled with standard medication
- AEs were as expected for a VEGF inhibitor

Efficacy
Clear signs of antitumor efficacy

- 2 patients showed significant reduction in tumor volume
- Treatment duration was ≥3 mo in 18 patients (40%) and ≥6 mo in 4 patients (10%)

These first-in-human data support the development of DARPin® therapy via systemic administration.

* 1- and 3-h infusion q2wk at doses ≤8 mg/kg or q3wk at 12 mg/kg; 1- and 3-h infusion well tolerated.
ADA, anti-drug antibody; AE, adverse event. Study details can be found at clinicaltrials.gov/NCT02194426.

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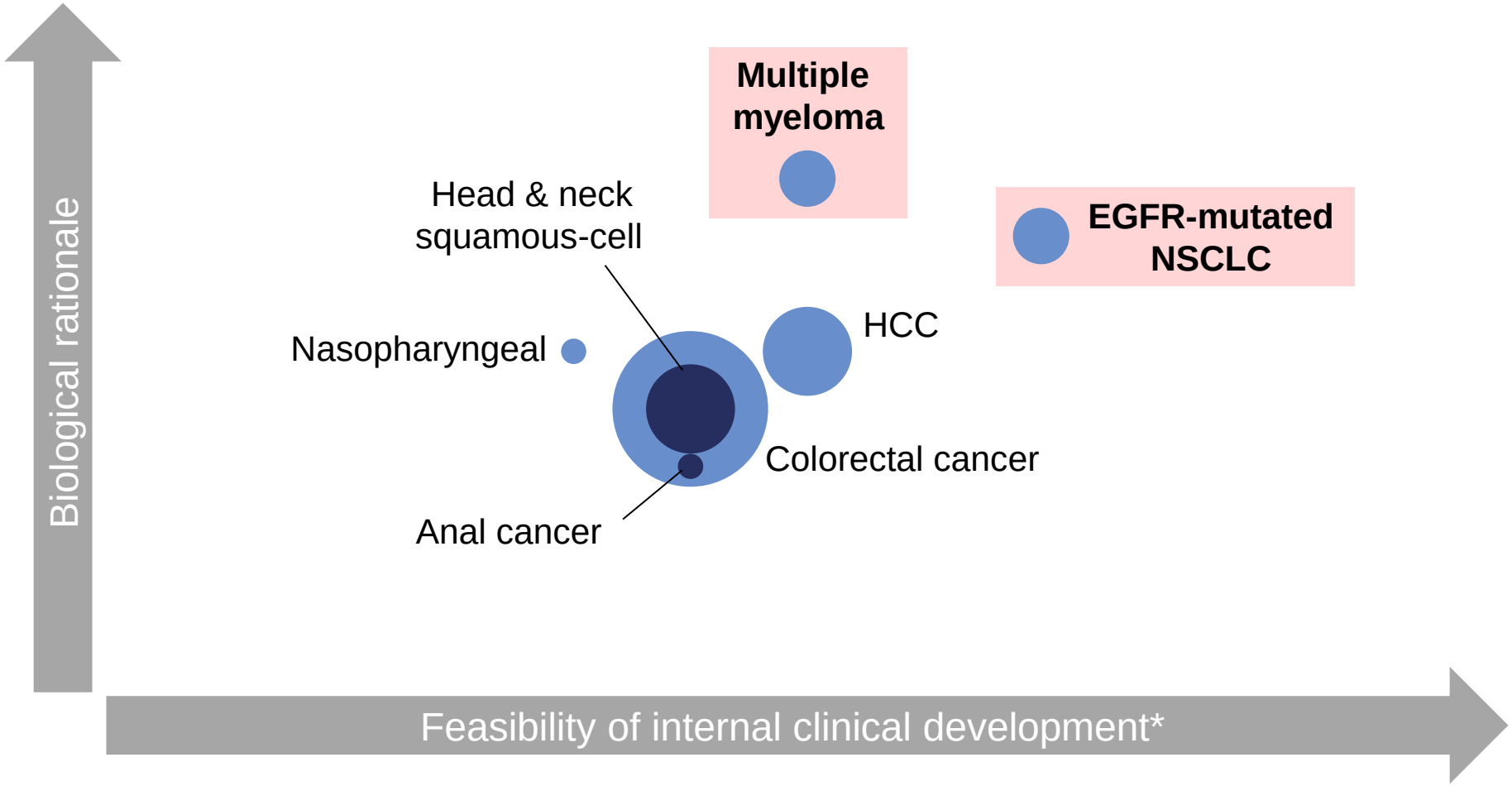
Our Indications for Phase 2: MM and NSCLC

MP0250



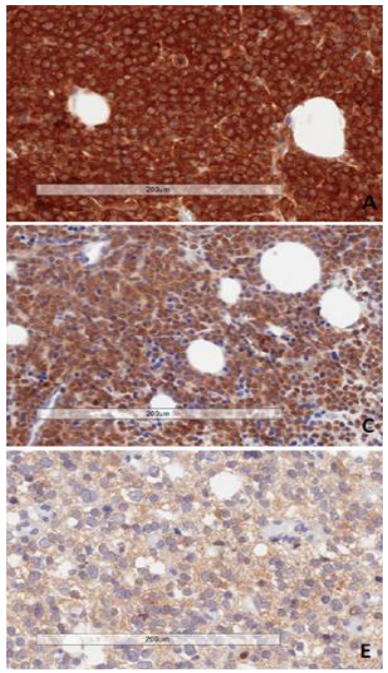
Bubble size indicates estimated relative market potential (incidences). Source: Datamonitor.
*Based on internal assessment on speed to market and complexity of development program. Potential of gastric, renal and other cancers under evaluation.

HGF & VEGF Rationale in MM is Supported by Clinical Data

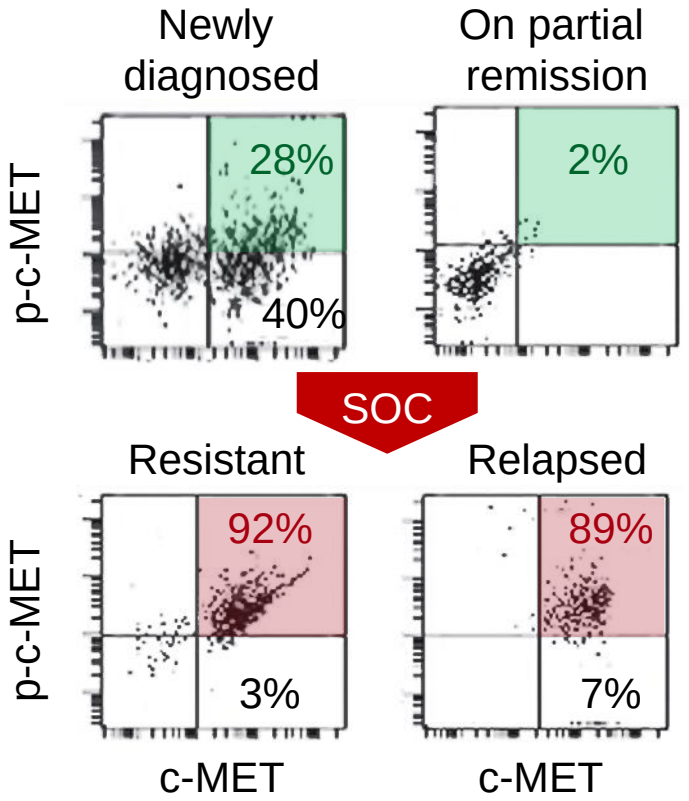
MP0250

Bone marrow of 8 MM patients sampled for HGF expression levels:

HGF score	Patients
3+	6/8
2+	2/8
1+	0/8



HGF receptor activation[1] dynamics



VEGF rationale: A small MM study of bevacizumab (Avastin®) + bortezomib (Velcade®) demonstrated benefit over Velcade® alone[2]

1. Moschetta M, et al. Clin Cancer Res 2013;19:4371-82; 2. White D, et al. Cancer 2013;119:339-47.

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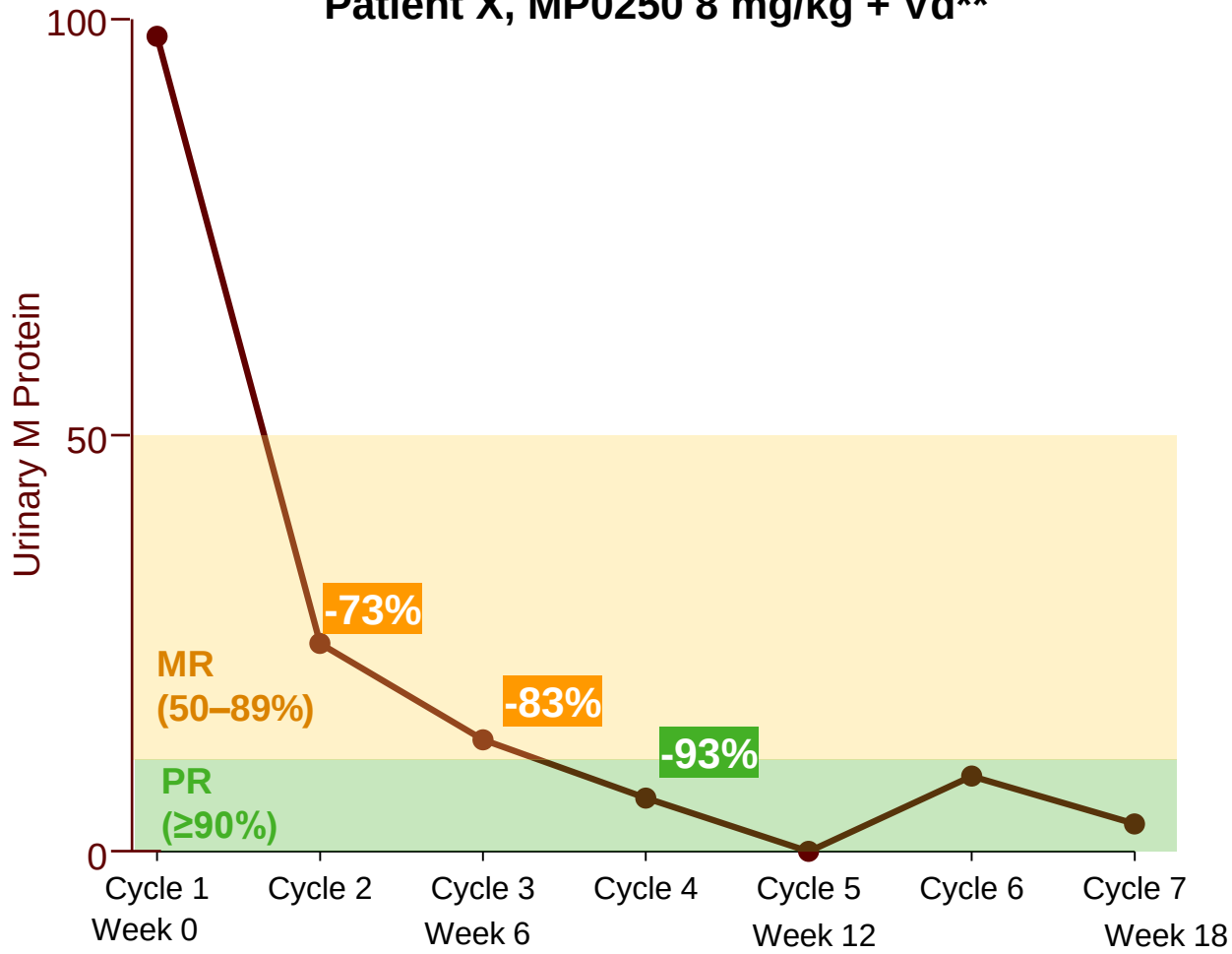
MP0250 Phase 2 Study in MM: Initial Safety & Efficacy Data

MP0250

Study design & status*:

- MP0250 + Velcade® + dexamethasone in refractory and relapsed multiple myeloma
- Initial dose level: 8mg/kg/3weeks
- 8 RRMM patients were dosed, with 7 evaluable for safety and efficacy determination at data cutoff
- Preliminary Results
  - 4 of 7 patients have evidence of anti-myeloma activity
  - 3 patients with Partial Response (PR)
  - 1 patient with Minor Response (MR)

Urinary M Protein % Change over Time: Patient X, MP0250 8 mg/kg + Vd**



*Data cutoff: 4th January 2018
**Kappa Free Light Chain measurement in line with M-protein
Study details can be found at clinicaltrials.gov/NCT03136653.

Unique Potential of MP0250 in MM

MP0250

- Multiple myeloma:
  2nd most common blood cancer
- Global market value ~USD 9.8bn, expected to reach > USD 12bn by 2021 (7% CAGR)*

1st/2nd-line
n >100,000*

IMiD or PI + mAb

PI or IMiD + mAb

Transplant

HGF/ c-MET

No later-line treatments target these key escape pathways

3rd/4th-line
n ≈30,000*

PI + X

IMiD + Y

+ MP0250

MP0250:
Potential to become backbone for all later lines

*Including US/5EU/JP. Datamonitor.

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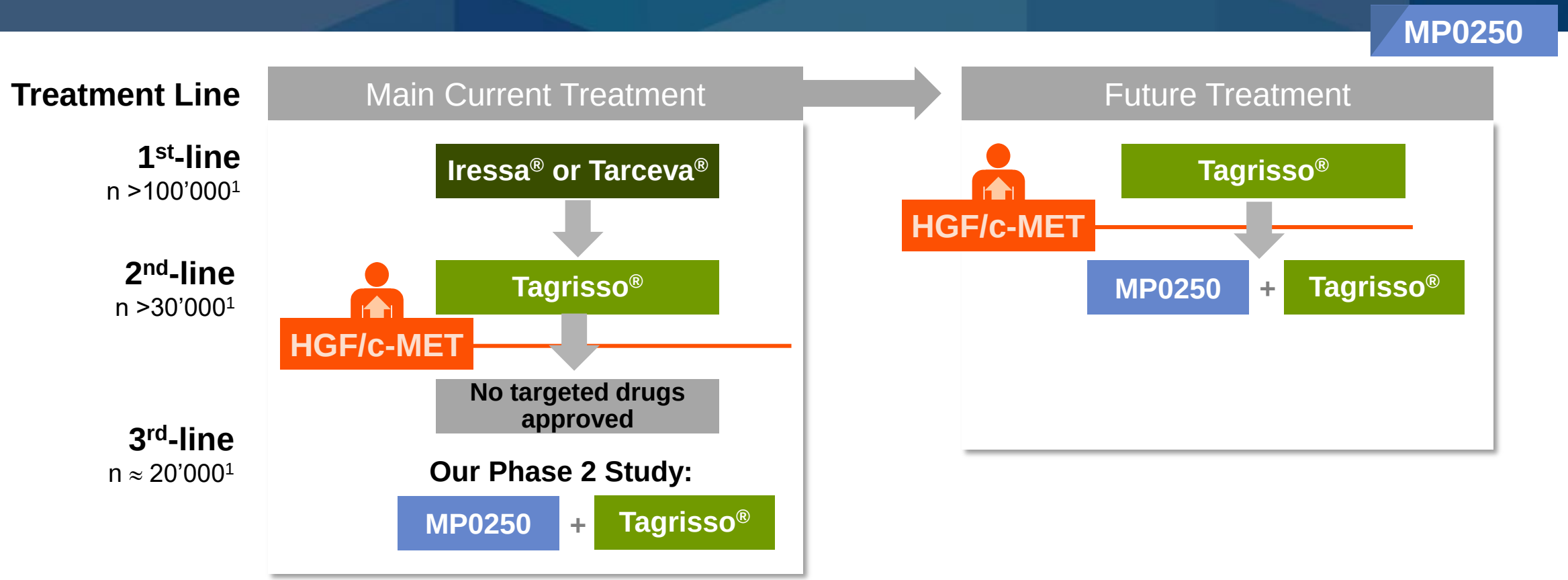
Unique Potential of MP0250 in EGFR mut NSCLC



- NSCLC is leading cause of cancer death
- Activating EGFR mutations are found in ~40% (Asia), ~20% (US), and ~15% (EU) NSCLC[2]
- Global market value (EGFR NSCLC) ~USD 2.8bn, expected to reach >3.5bn by 2023 (5% CAGR)[3]

1. Including total prevalent cases in US/5EU/JP. Based on Datamonitor; 2. Tang, et al. Oncotarget 2016; 3. Datamonitor

Immuno-Oncology

MP0310

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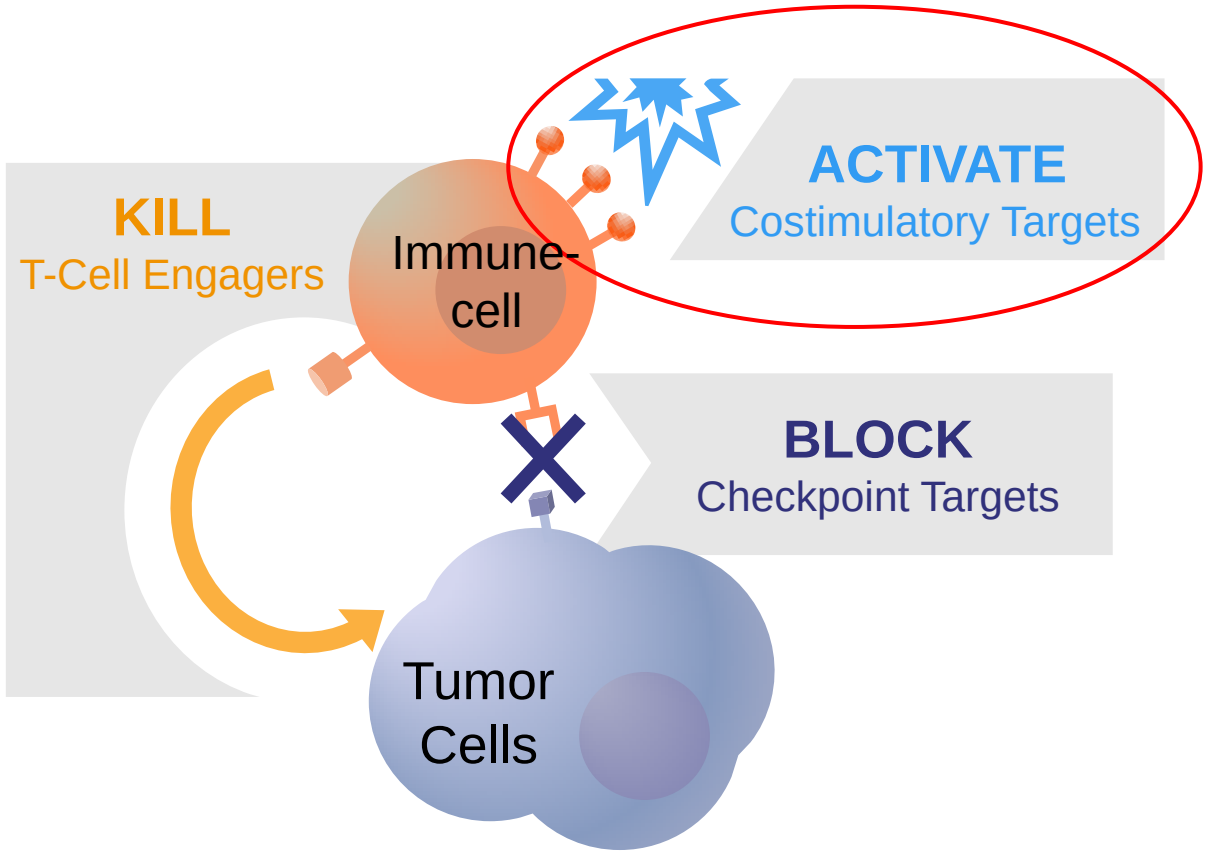
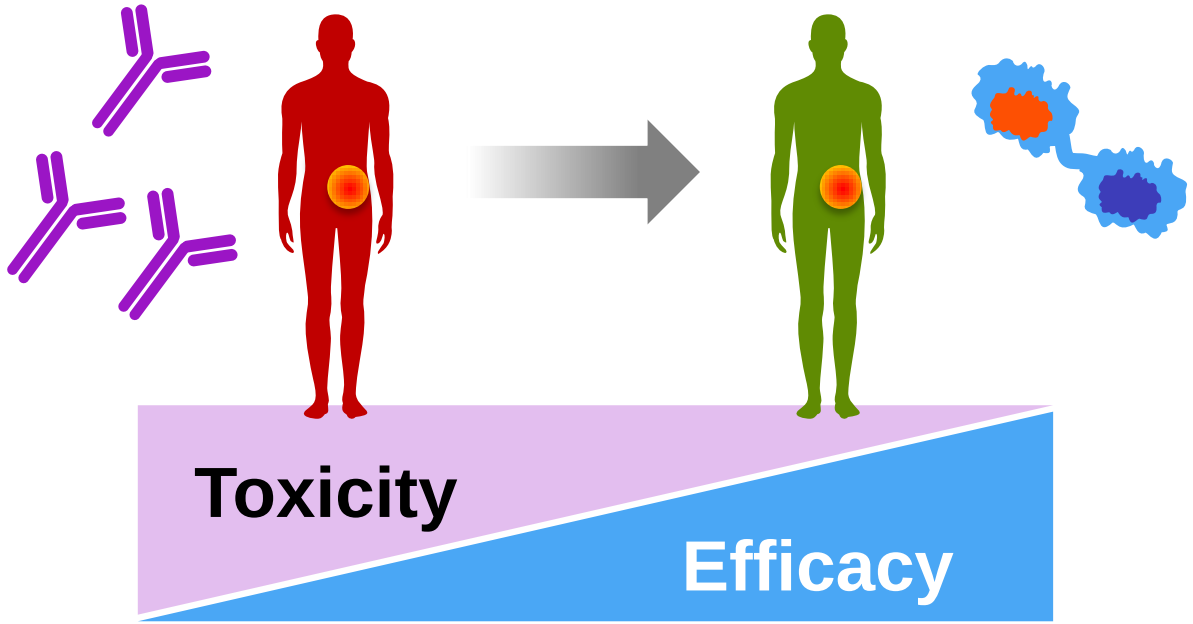
Opening the Therapeutic Window for Combinations in I/O

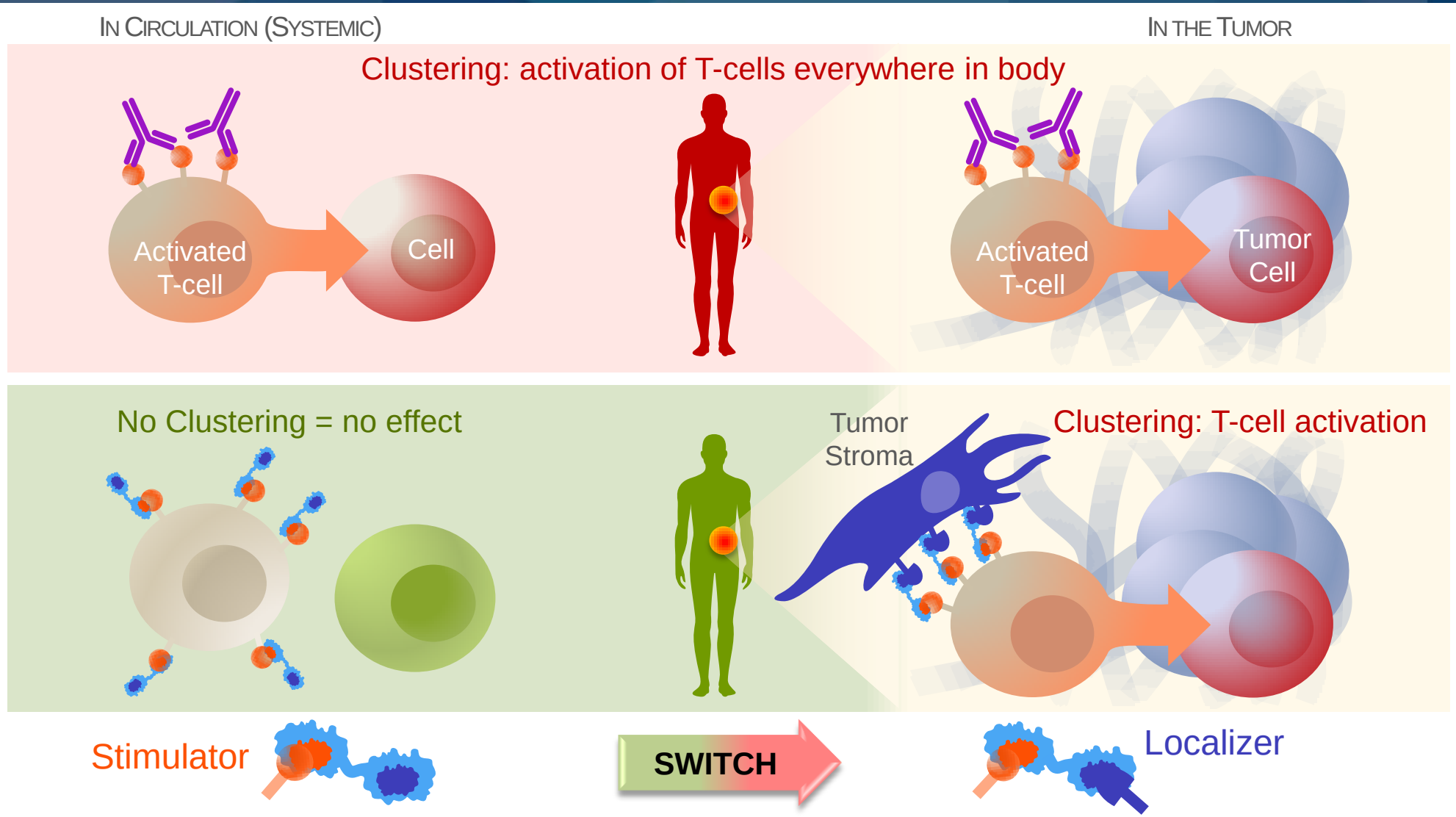
Need to stimulate the immune cells on different levels



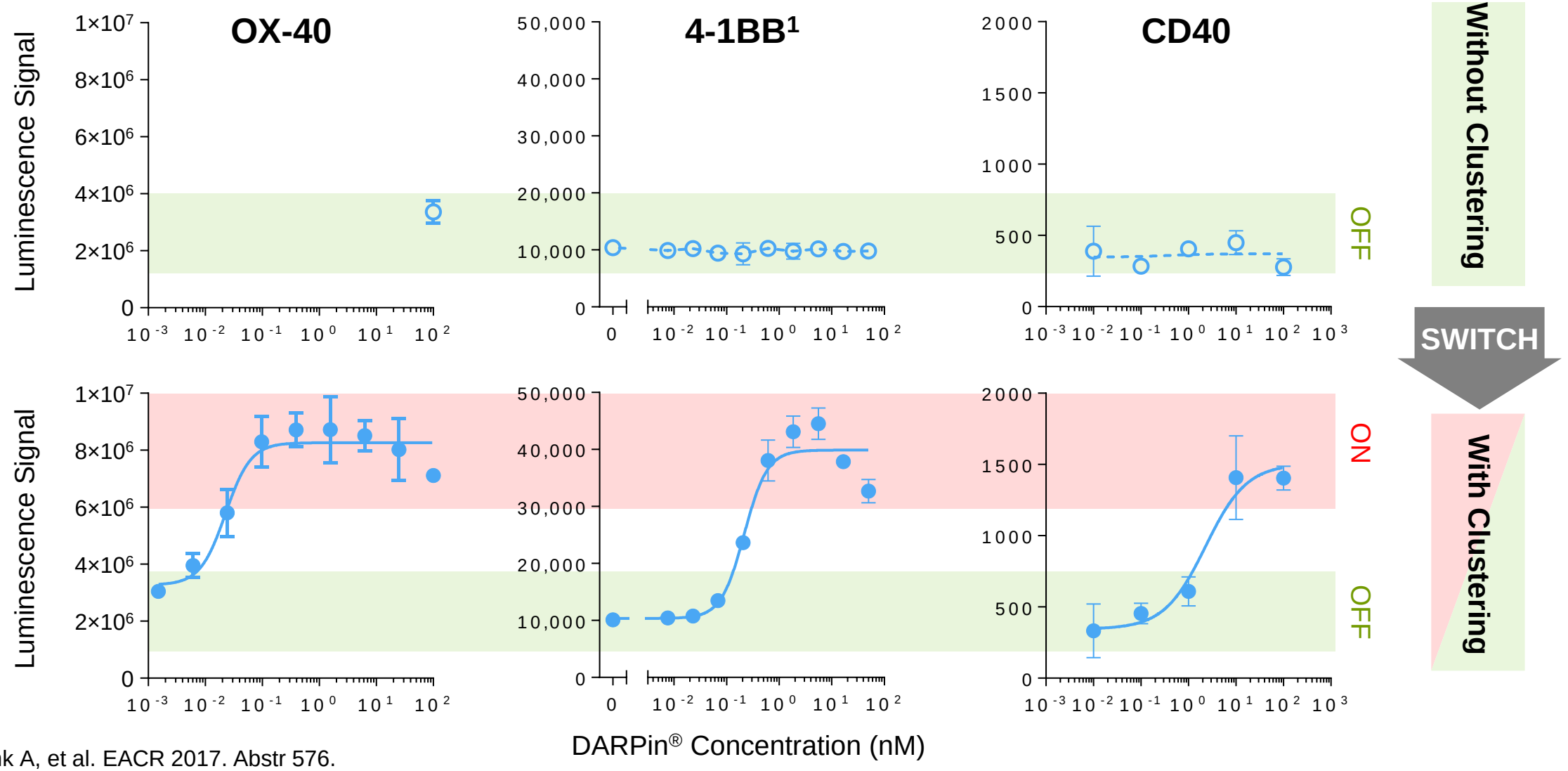


Can we open the therapeutic window for combinations by local stimulation

Toxicity Limits Full Potential of Antibody Agonists

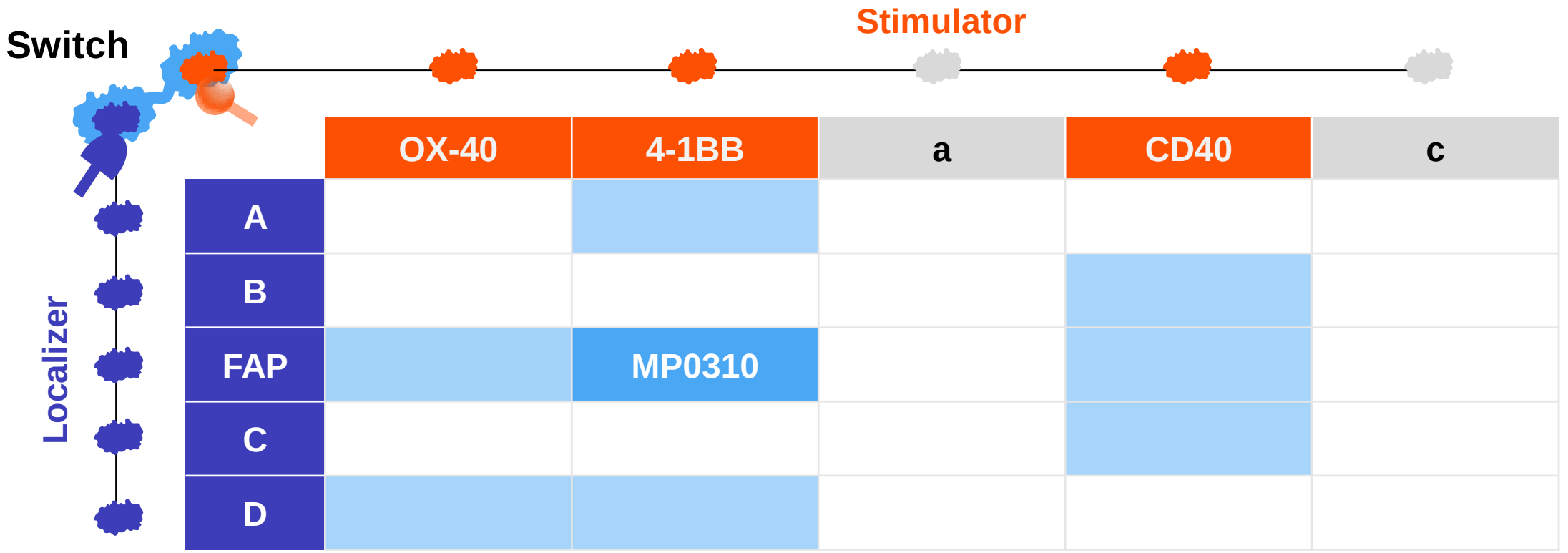


All Successful DARPin® Stimulators to Date



1. Link A, et al. EACR 2017. Abstr 576.

DARPin® Toolbox with Unlimited Combinations

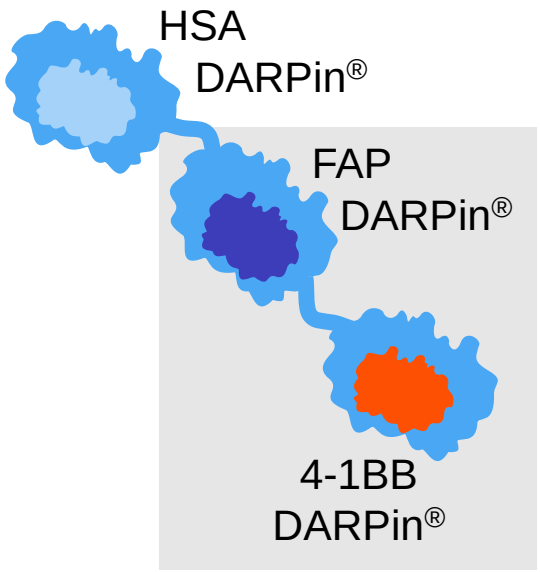


Many DARPin® candidates are under investigation for both solid and liquid tumors (including combinations)

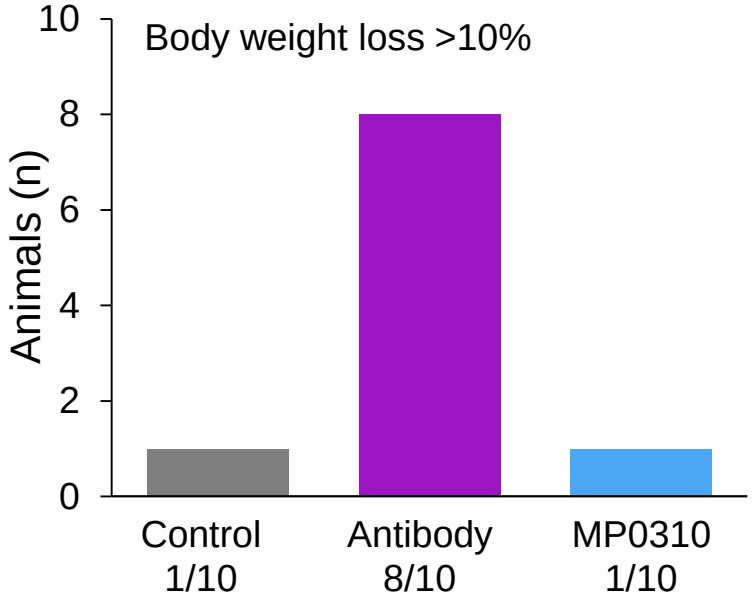
Overview of MP0310 Data

MP0310

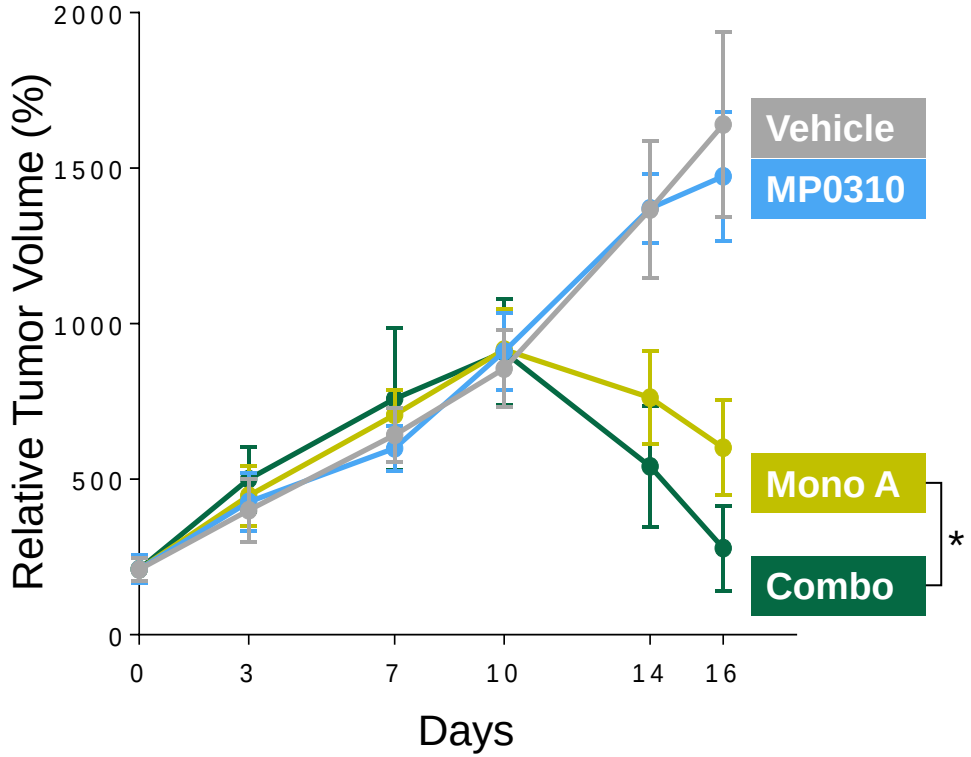
MP0310



No systemic toxicity



Ideal for combinations



- MP0310 shows lower systemic toxicity compared with current therapy
- Would be ideal combination partner with other drugs

*p<0.001, 2-way ANOVA.

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Ophthalmology

Abicipar

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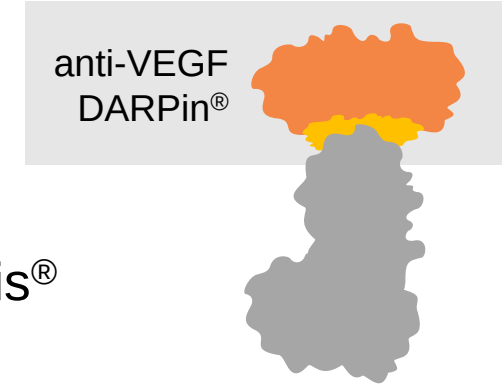
Abicipar: Most Advanced DARPin® Therapy

Abicipar

- Long-acting PEGylated mono-DARPin® protein blocking VEGF



- Potentially transformative therapy with **less frequent ocular injections** compared with standard of care
- Phase 2 data suggest **quarterly dosing** & comparable efficacy to Lucentis®
- Drug Safety Monitoring Committee (DSMC): no changes recommended

- Market: USD 8bn annual sales (2016) and growing (wet AMD and DME)
- Economics: Up to $360mn open milestones & low double-digit to mid-teen tiered royalties

- Wet AMD Phase 3 read out: 1 year data in 2018
- Allergan plans to start DME Phase 3 in 2018

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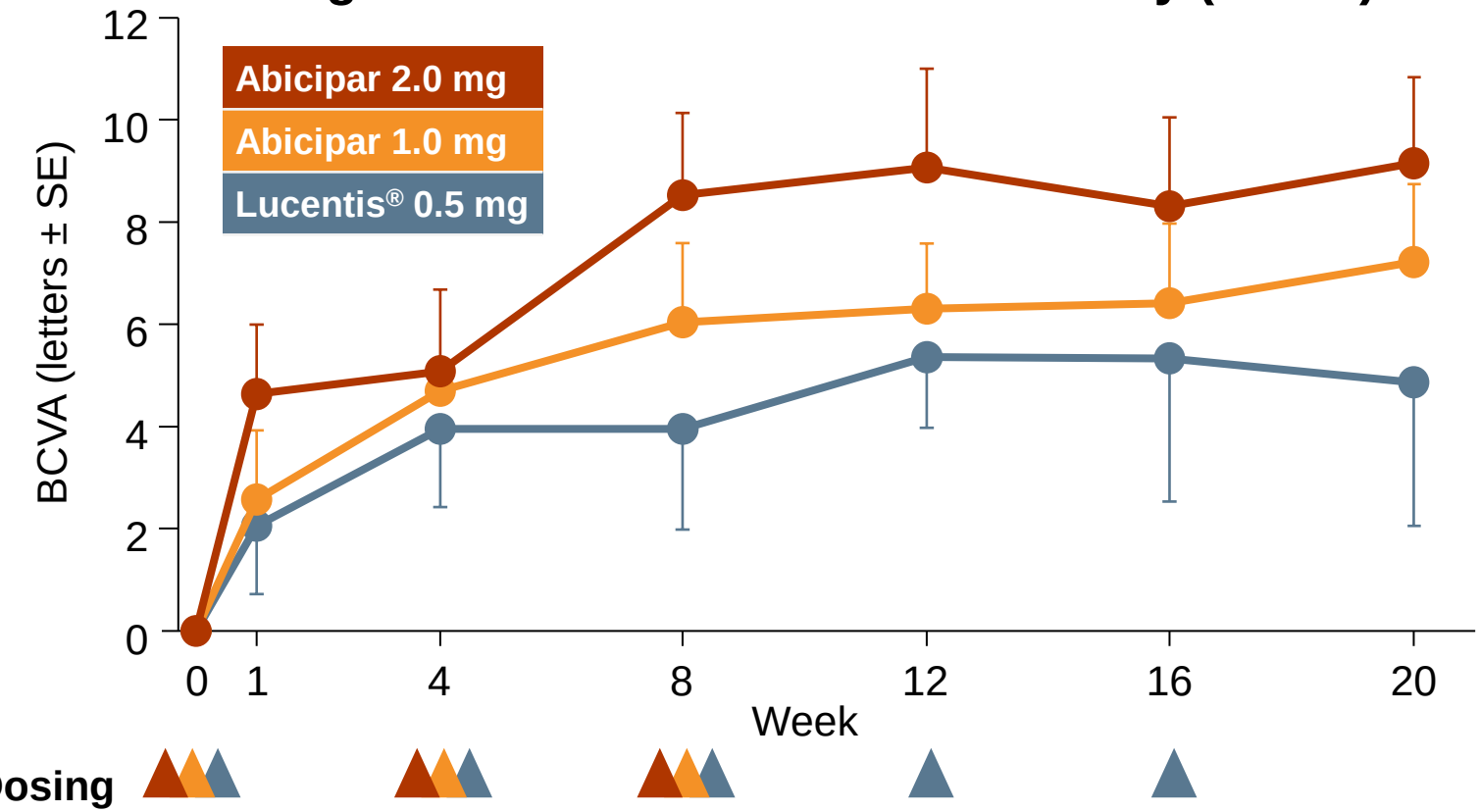
Phase 2 Data Suggest Quarterly Dosing for Wet AMD

Abicipar

Change of Best-Corrected Visual Acuity (BCVA)*



Safety Data

Vision Gain (letters)		Safety (n/N)
Wk 16	Wk 20	AEs†
8.2	9.0	2/23
6.3	7.1	3/25
5.3	4.7	0/16

The abicipar formulation has been further optimized for safety for use in Phase 3.

Allergan, 12 August 2014.
*Study not powered to reach statistical significance; †Ocular inflammation.
SE, standard error.

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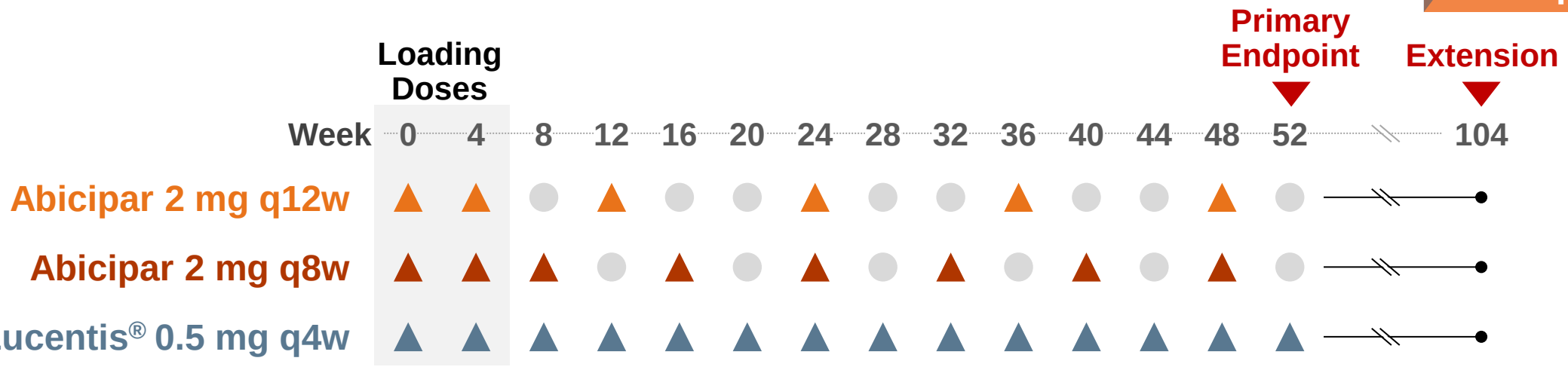
CEDAR & SEQUOIA: Abicipar Pivotal Studies in wet AMD

Abicipar



- 2 parallel, randomized, double-blind phase 3 studies
  - 2x 900 patients globally
  - Patient recruitment completed since early May 2017 (4 months ahead of plan)
- Drug Safety Monitoring Committee (DSMC): no changes recommended
- Next milestones: 1 year read-out in 2018 (triggers FDA filing), targeted launch in 2020

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Abicipar: One of Allergan's Star Programs

Abicipar

DEVELOPMENT PROGRESS OF 6 STAR PROGRAMS

Ubrogepant Acute Migraine	2 Ph 3 trials in US initiated with recruitment well ahead. Topline results 1H 2018.
Atogepant Migraine Prophylaxis	Ph 2b trial in US initiated. Topline results 1H 2018.
Rapastinel MDD	Ph 3 trials ahead of schedule. Topline results expected 2019.
ESMYA Uterine Fibroids	NDA submission on track for 2H 2017. Submission for long-term intermittent therapy.
Abicipar AMD	2 Ph 3 trials enrollment completed. Topline results 2018.
Cenicriviroc NASH	Patient screening for Ph 3 initiated.

Program	TA/Indication	MOA	Year Launch	Estimated Peak Sales	Key Highlight
ABICIPAR	AMD DME	Recombinant designed ankyrin repeat protein. Potent blocker of all forms of soluble VEGF-A	2020 2022	$1.5B-$3B	• Reduction in injection burden is a significant unmet need • Offers sustained efficacy with fewer injections

Allergan: Q1 2017 earnings call (May 9th) & Leerink Partner conference (Feb 15th).

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Summary & Outlook

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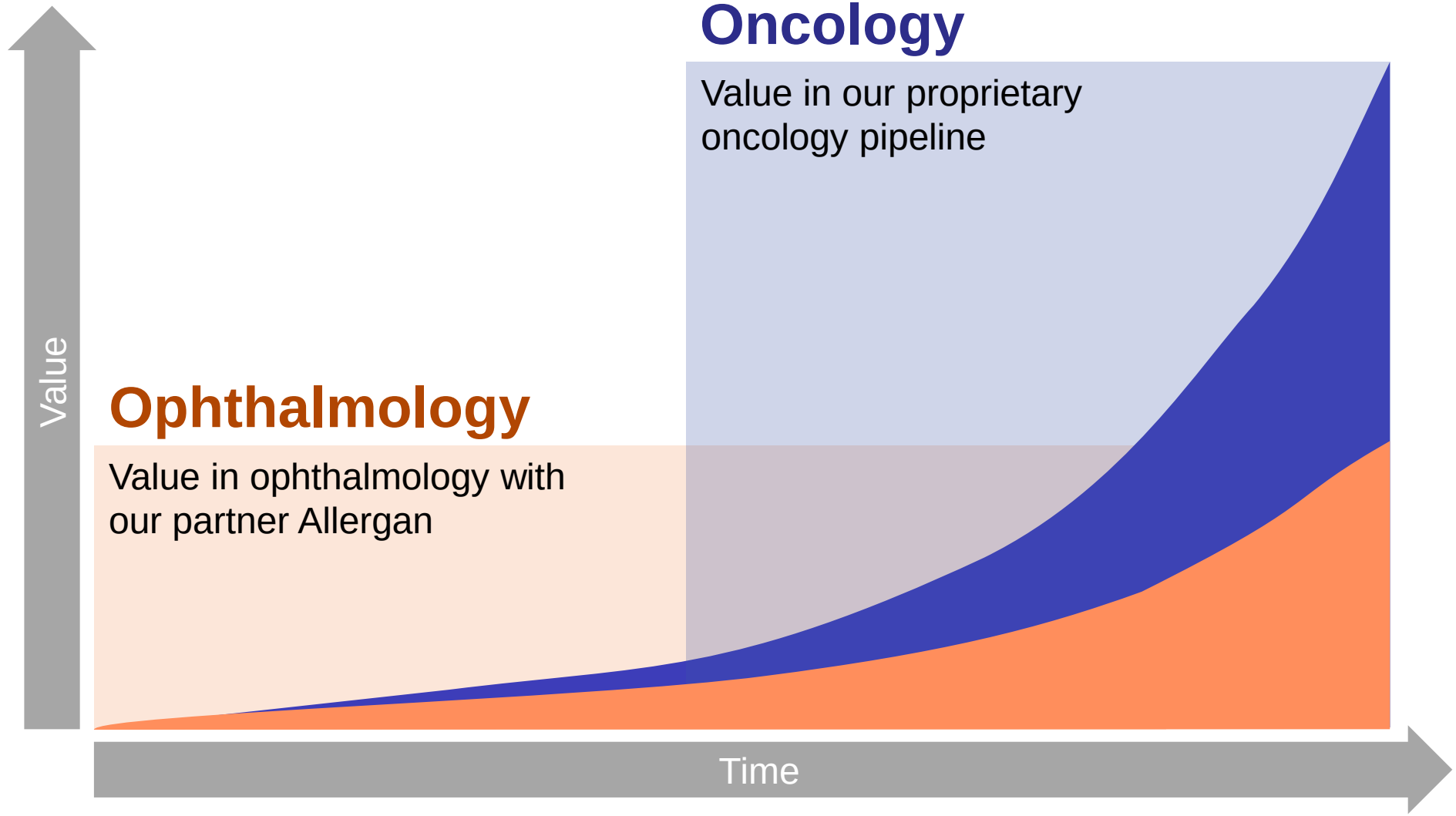
Ready to Capture Value Beyond Ophthalmology



Investment Case and Key Messages

- Successful transition from DARPin® platform into clinical product company
- Key value in our pipeline (recent advancements):
  - MP0250 (2x Phase 2), activity data reported in early cohort in RRMM; MP0274 (phase 1) in Her2+ cancers
  - Abicipar (Phase 3 data) in ophthalmology, Allergan optioned 3/3 DARPin® candidates for further development
  - MP0310 selected as 1st development candidate from our I/O DARPin® toolbox
- Financed into 2020, capturing key value inflection points

Multiple Value Inflection Points Ahead

	2018	2019	2020
Abicipar	wAMD: 1-y Ph 3 efficacy DME: Ph 3 expected start		wAMD: expected launch in 2020
MP0250	MM: initial efficacy NSCLC: initial safety	MM: efficacy NSCLC: initial efficacy	NSCLC: efficacy
MP0274	Initial safety	Initial efficacy	
MP0310	Preclinical data	FIH	

Funding into 2020

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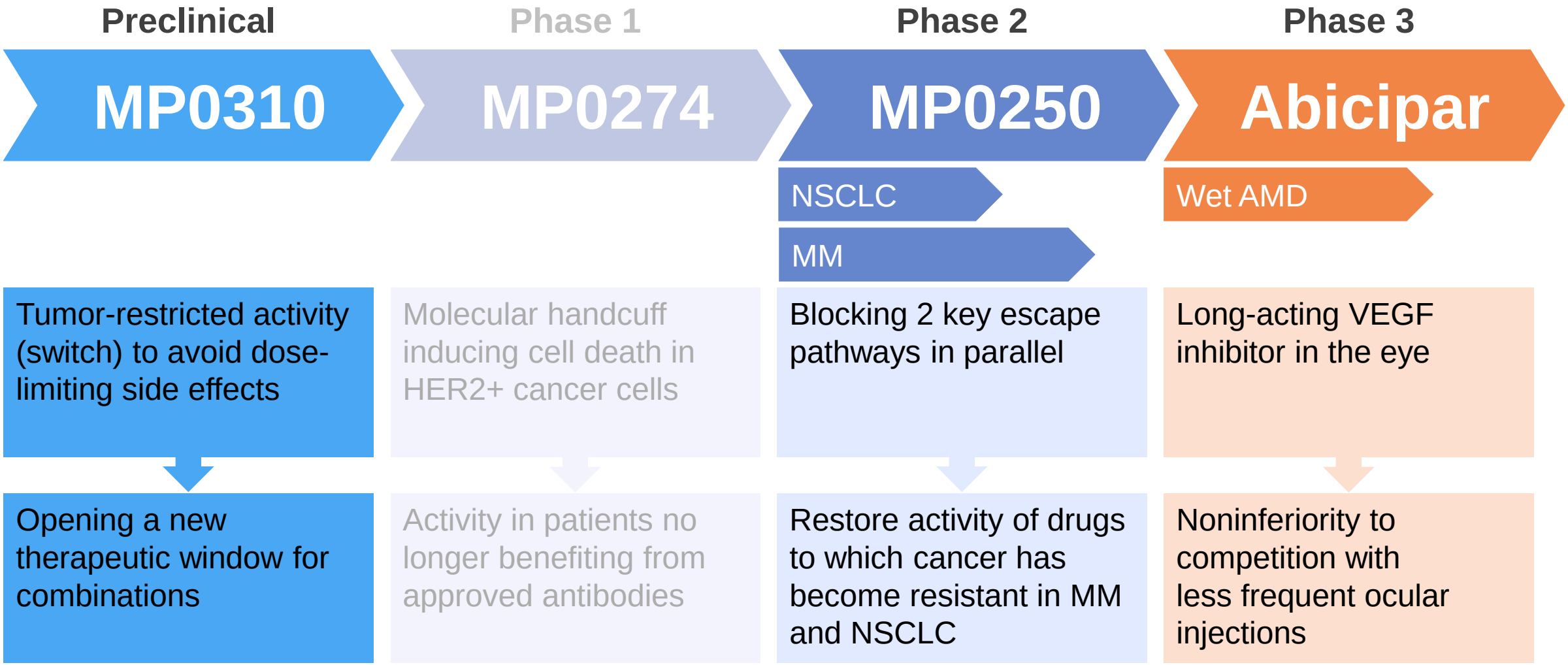
Overview:


Preclinical
Phase 1
Phase 2
Phase 3
MP0310
MP0274
MP0250
Abicipar
NSCLC
MM
Wet AMD
Tumor-restricted activity (switch) to avoid dose-limiting side effects
Molecular handcuff inducing cell death in HER2+ cancer cells
Blocking 2 key escape pathways in parallel
Long-acting VEGF inhibitor in the eye
Opening a new therapeutic window for combinations
Activity in patients no longer benefiting from approved antibodies
Restore activity of drugs to which cancer has become resistant in MM and NSCLC
Noninferiority to competition with less frequent ocular injections