Oncopeptides

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Jakob Lindberg, CEO

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Oncopeptides at a glance

Develops targeted cancer treatments

- Proprietary peptide-conjugated compounds
- Lead compound Melflufen a peptide-conjugated alkylator targeting Multiple Myeloma

Initial focus on Multiple Myeloma

- Significant market opportunity in orphan indication
- Melflufen Phase 2 study, O-12-M1, showed the best MM survival data to date

Application process initiated for accelerated approval in the US

- Target to submit in H1-20 based on ongoing phase 2 study HORIZON
- Triple-class refractory MM

Phase 3 expected to be fully enrolled in Q1 2020

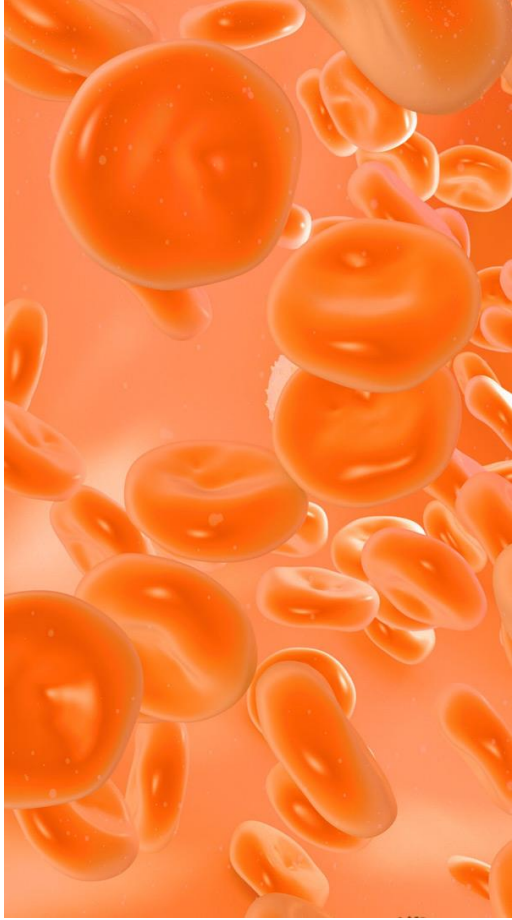
- Approximately 450 patients at 140 sites
- Two additional supporting trials ongoing. Additional phase 3 called LIGHTHOUSE will start early 2020

New indications and NCEs in development

- A Phase 1/2 study addressing AL amyloidosis to start shortly

Listed on NASDAQ Stockholm, strong financial position

- Market cap: SEK 7,4 B ($ 780 M)
- Cash position: SEK 1,122 M ($ 118 M) as of September 30

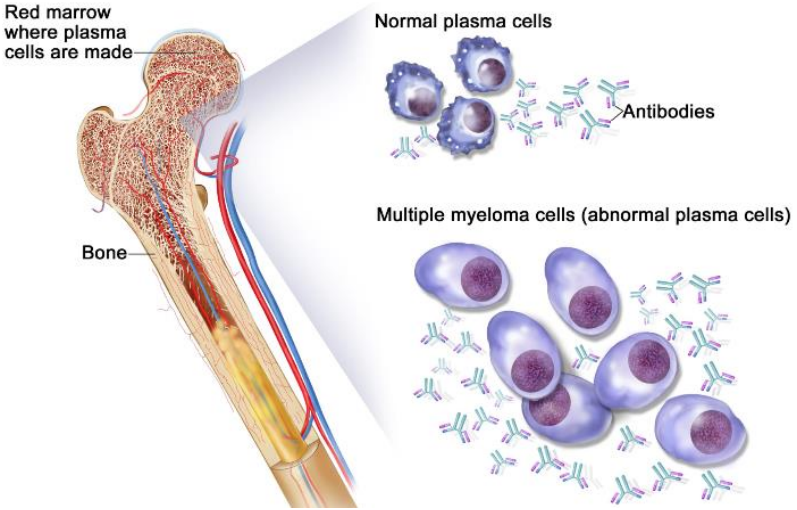


Financial results for the period Jan – Sep 2019

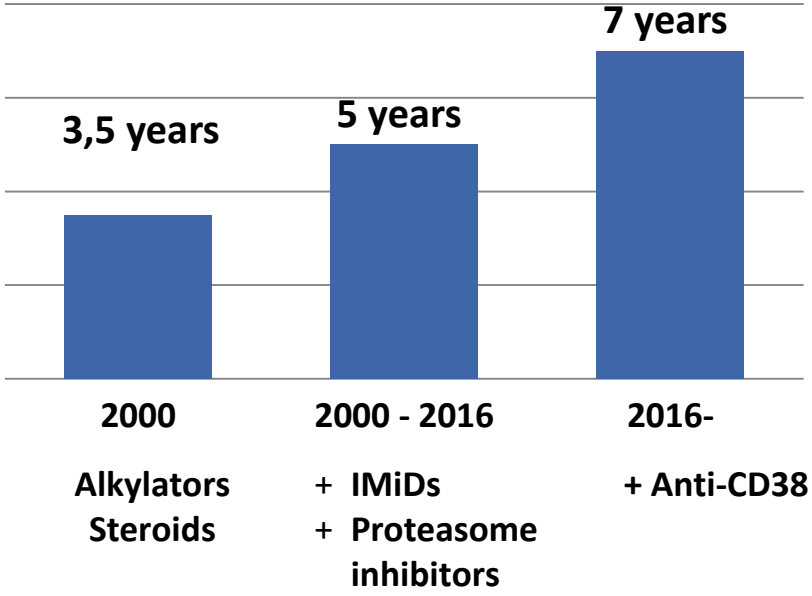
- Operating loss increased to SEK 495.1 M (loss:299.1)
  - R&D increase primarily due to increase in Clinical & drug supply: SEK 318.3 M (189.9)
    - OCEAN costs SEK 174.2 M (100.7)
    - HORIZON costs SEK 41.2 M (18.1)
    - ANCHOR costs SEK 30.8 M (16.8)
  - Build-up of commercial and medical relations explains increase in M&S costs
- Operating costs include non-cash costs related to incentive programs
  - SEK 24.1 M (61.7) for the first nine months
- Cash flow from operating activities neg. SEK 473.6 M (neg. 224.9)
- Cash position was SEK 1 122.3 M (488.9) as of Sep 30, 2019
  - Directed share issue raised SEK 514.8 M after issue costs in January 2019
  - Second share issue raising SEK 682.9 M was completed in July

Multiple Myeloma is a hematological cancer without cure

Myeloma – Uncontrolled plasma cell proliferation



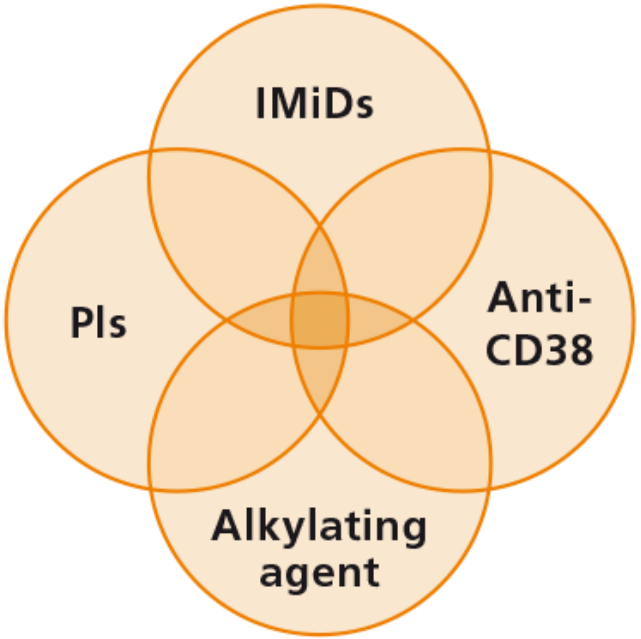
Median Survival increasing with more available treatment options



Source: IntrinsiQ and Kantar Health.

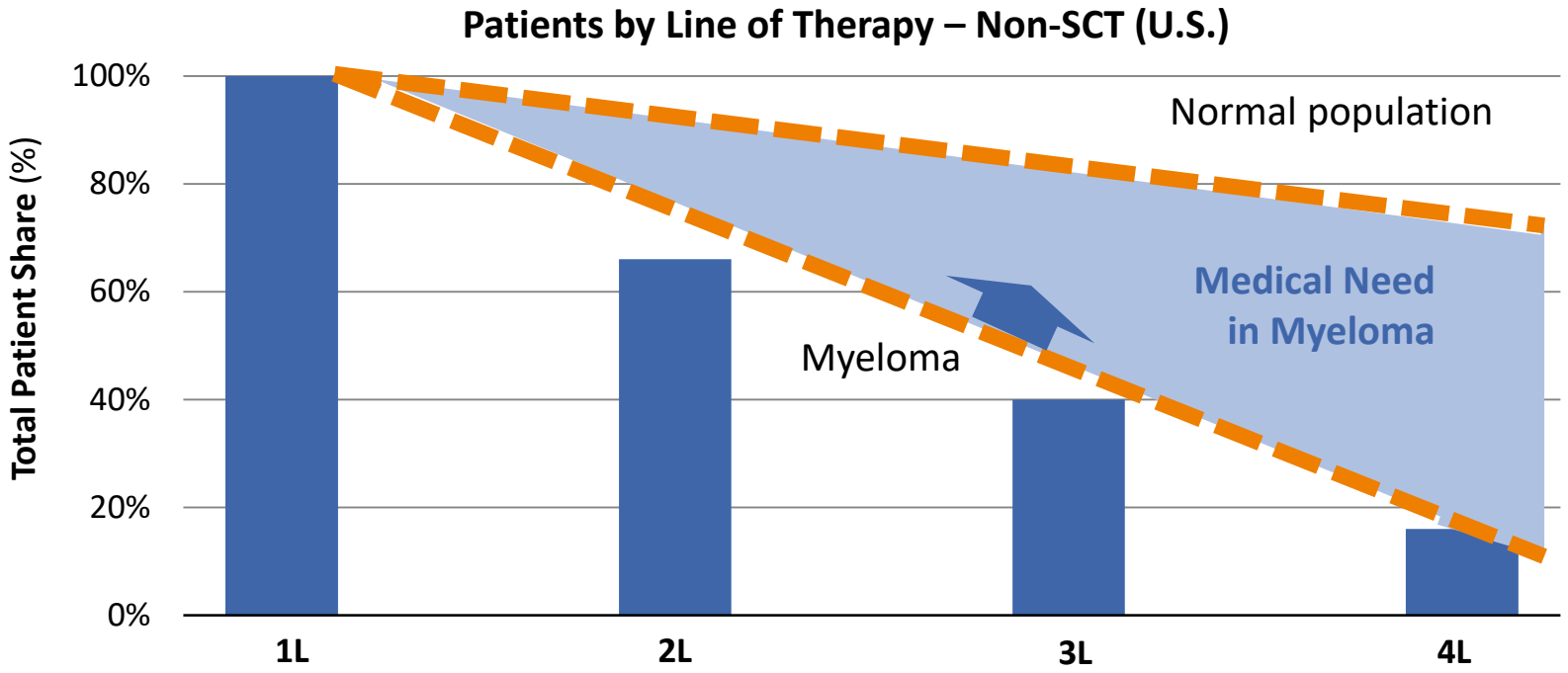
Significant medical needs remain

- Four treatment modalities used with inevitable resistance development
- Currently, the majority of patients have been treated with all four modalities after 2-3 lines of therapy with limited treatment options left
- Frequent co-morbidities further compounding the problem with limited treatment options



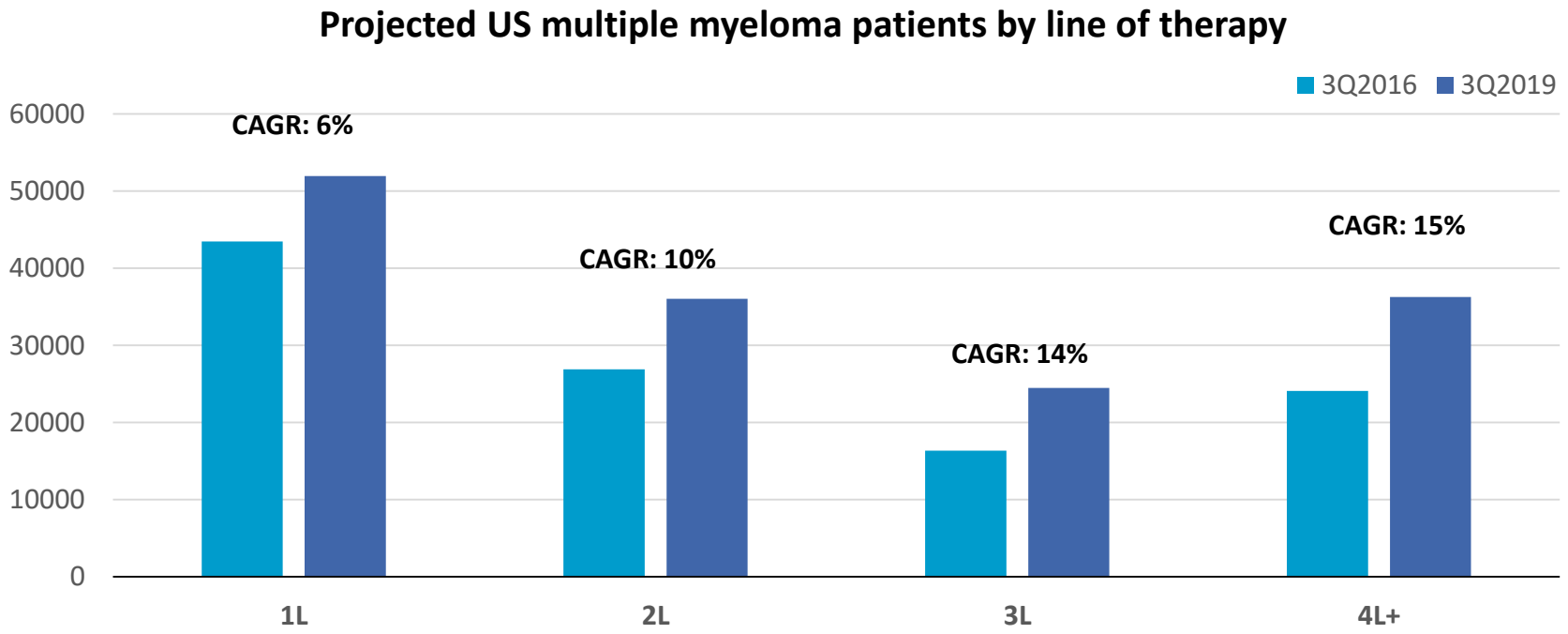
We are still far from making myeloma a chronic disease

– Later line patient population growing with significant need for new treatments



Source: Kantar Health 2018

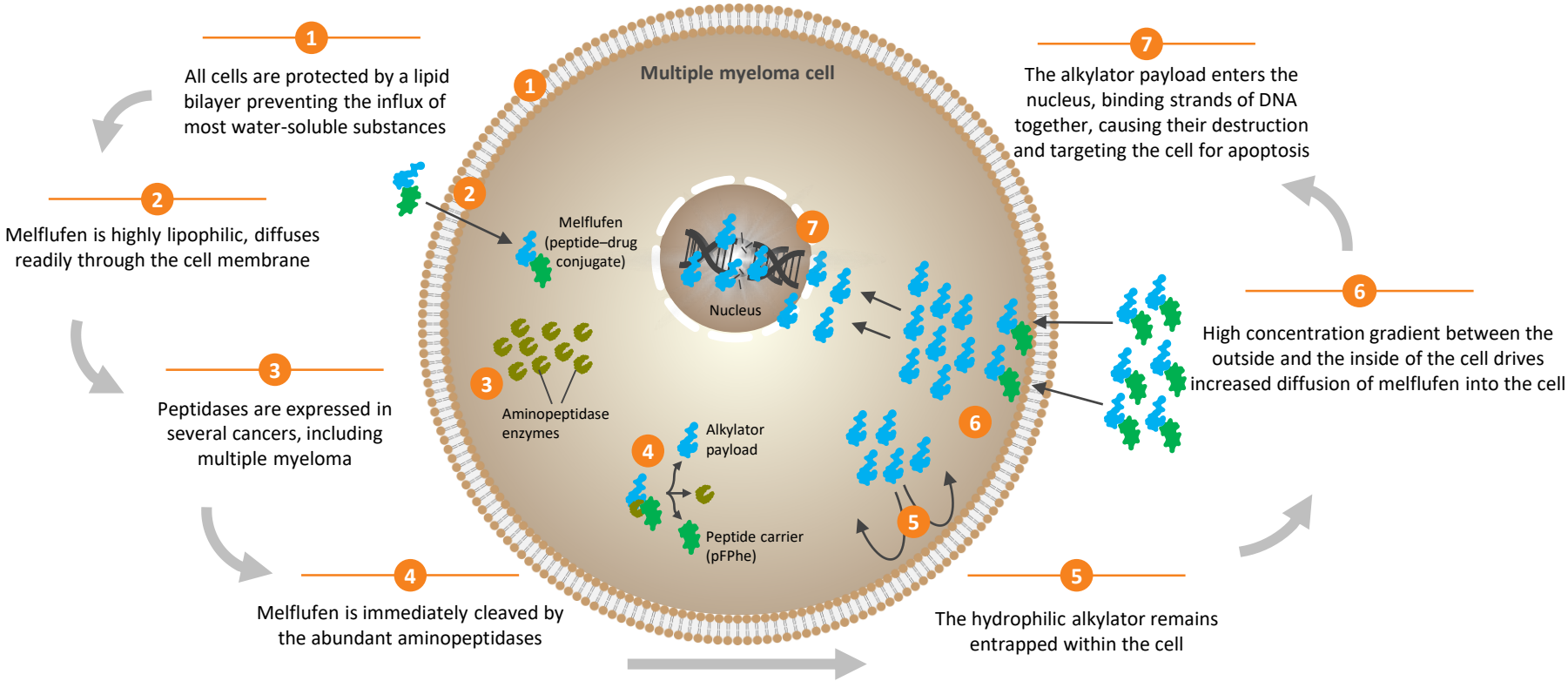
Improved outcomes lead to fast growth in number of treated patients in later lines of therapy



Source: Intrinsiq MAT 3Q2019
Note: 3-yr annual growth rate for 3Q2016-3Q2019

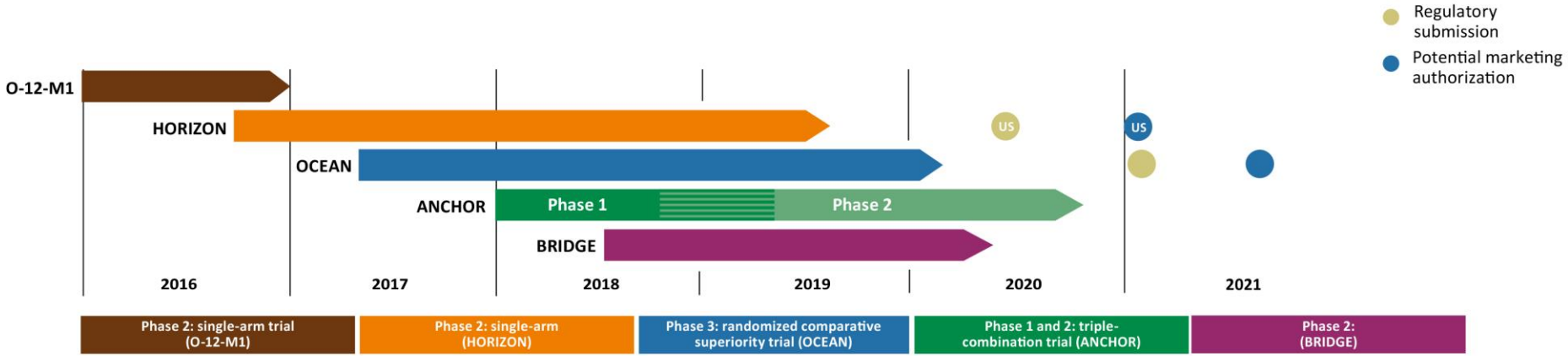
Melflufen is a novel peptide-drug conjugate

- Uses high peptidase levels to target myeloma cells



Chauhan D, et al. Clin Cancer Res 2013;19(11):3019-3031; Wickström M, et al. Invest New Drugs 2008;26(3):195-204; Ray A, et al. Br J Haematol 2016;174(3):397-409; 4. Strese S, et al. Biochem Pharmacol 2013;86(7):888-895; Wickström M, et al. Oncotarget 2017; 8(39):66641-66655.

Overview of our present clinical development program in multiple myeloma



O-12-M1
Show single-agent activity in RRMM

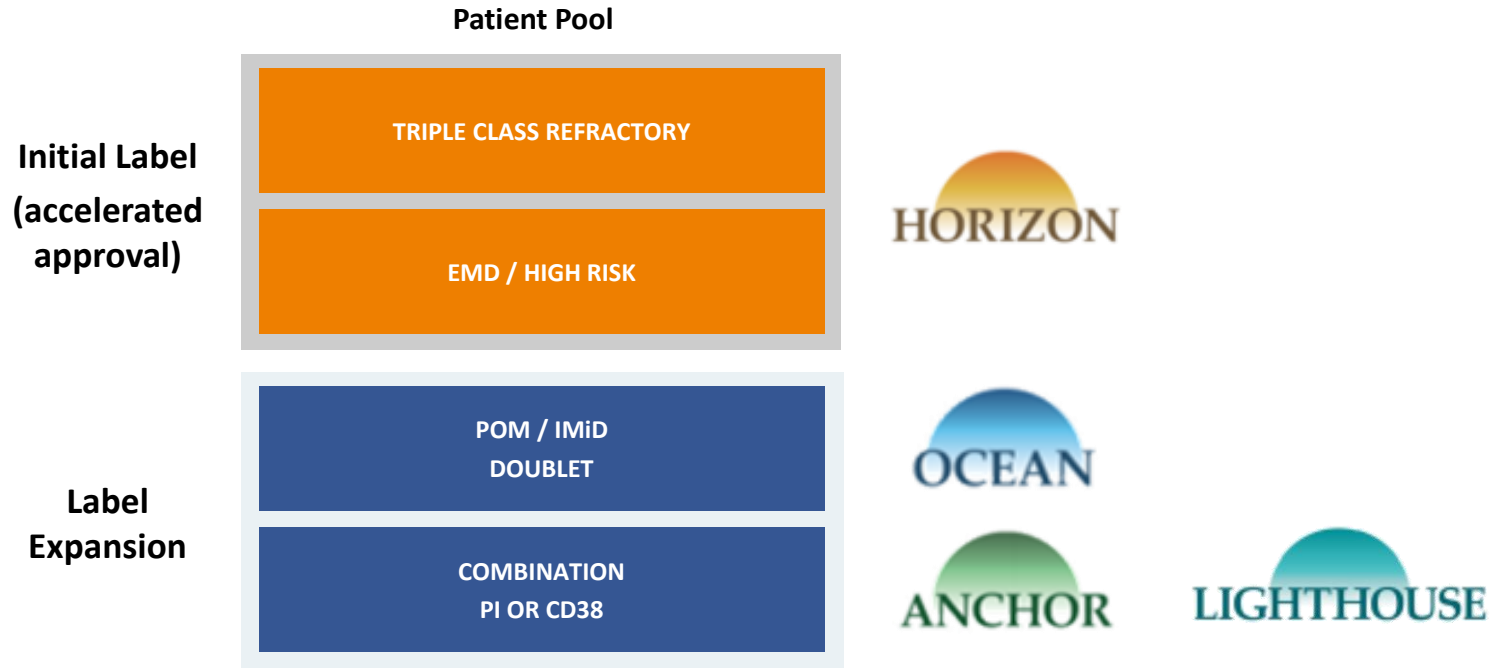
HORIZON
Show single-agent activity in RRMM

OCEAN
Show single-agent Superiority over SoC backbone in RRMM (pomalidomide)

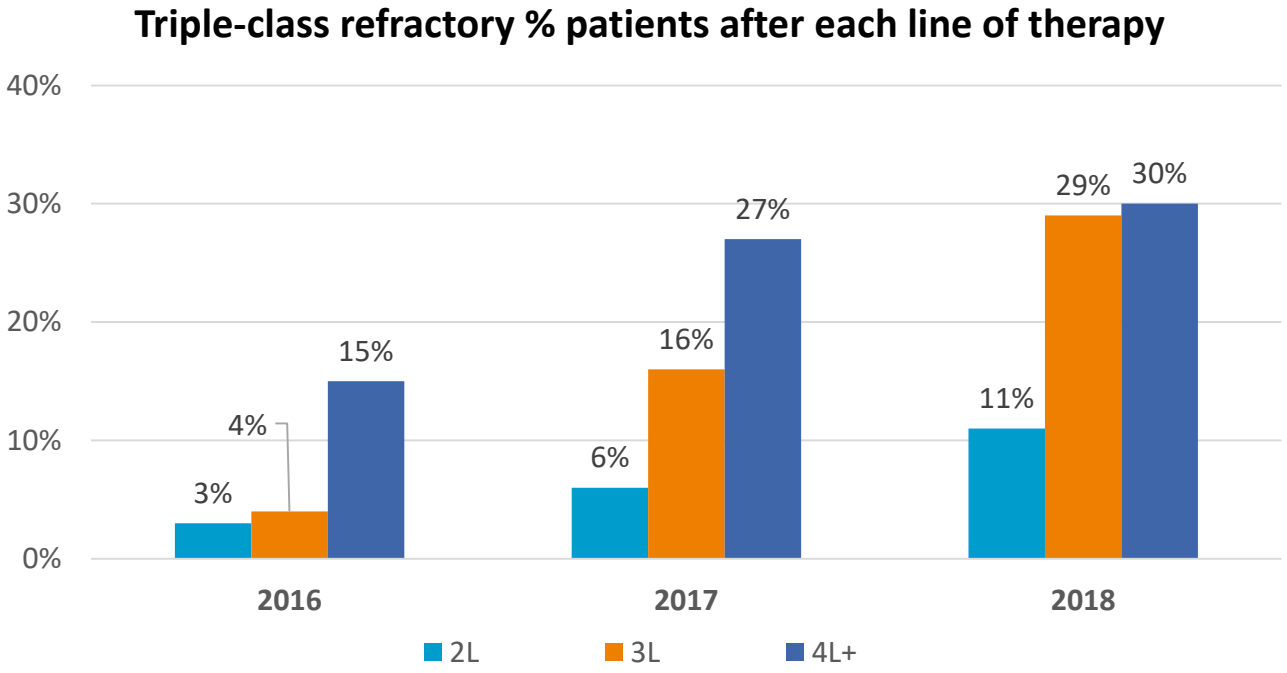
ANCHOR
Show combination synergy and tolerability with daratumumab and bortezomib

BRIDGE
Show that melflufen can be used in patients with renal impairment

Label journey with current development program in myeloma



Initial indication of triple-class refractory disease is a significant and growing unmet medical need in myeloma



Estimated >20,000 Triple-class refractory patients in the US and growing

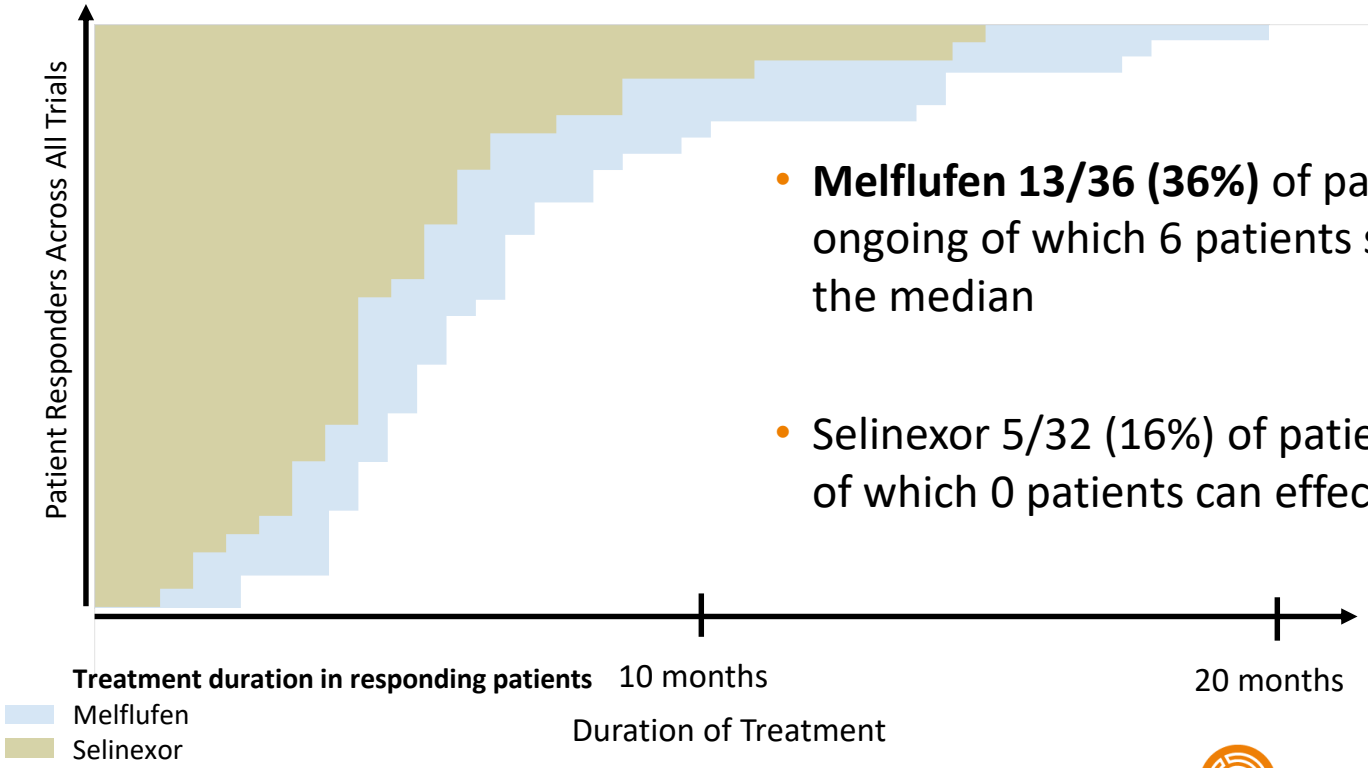
Source: Company analysis of IQVIA patient data

Melflufen triple-class RRMM data is highly competitive

– Duration of treatment and QoL are main drivers of use in later lines of therapy

	Melflufen	Selinexor	Belantamab
ORR/CBR	24%/37%	25%/39%	31%/34%
mDOR	7.5 months	4.4 months	NR (≈7-8months)
mPFS	4.0 months	3.7 months	2.9 months
mOS	11.3 months	8.0 months	NR (≈10months)
%EMD	34%	22%	23%
SAE rate	51%	58%	36% (excl. ocular tox.)
Non-hematologic toxicity (grade 3/4) reported in >5% of patients	Pneumonia 8.4%	Fatigue 25.2% Hyponatremia 20.3% Nausea 9.8% Pneumonia 8.9% Diarrhea 7.3% Sepsis 5.7% Hypokalemia 5.7% Mental status 5.7% General det. 5.7%	Keratopathy/ Blurred vision 27.4% Hypercalcaemia 7.4% Pneumonia/ Lung infections 6.3%

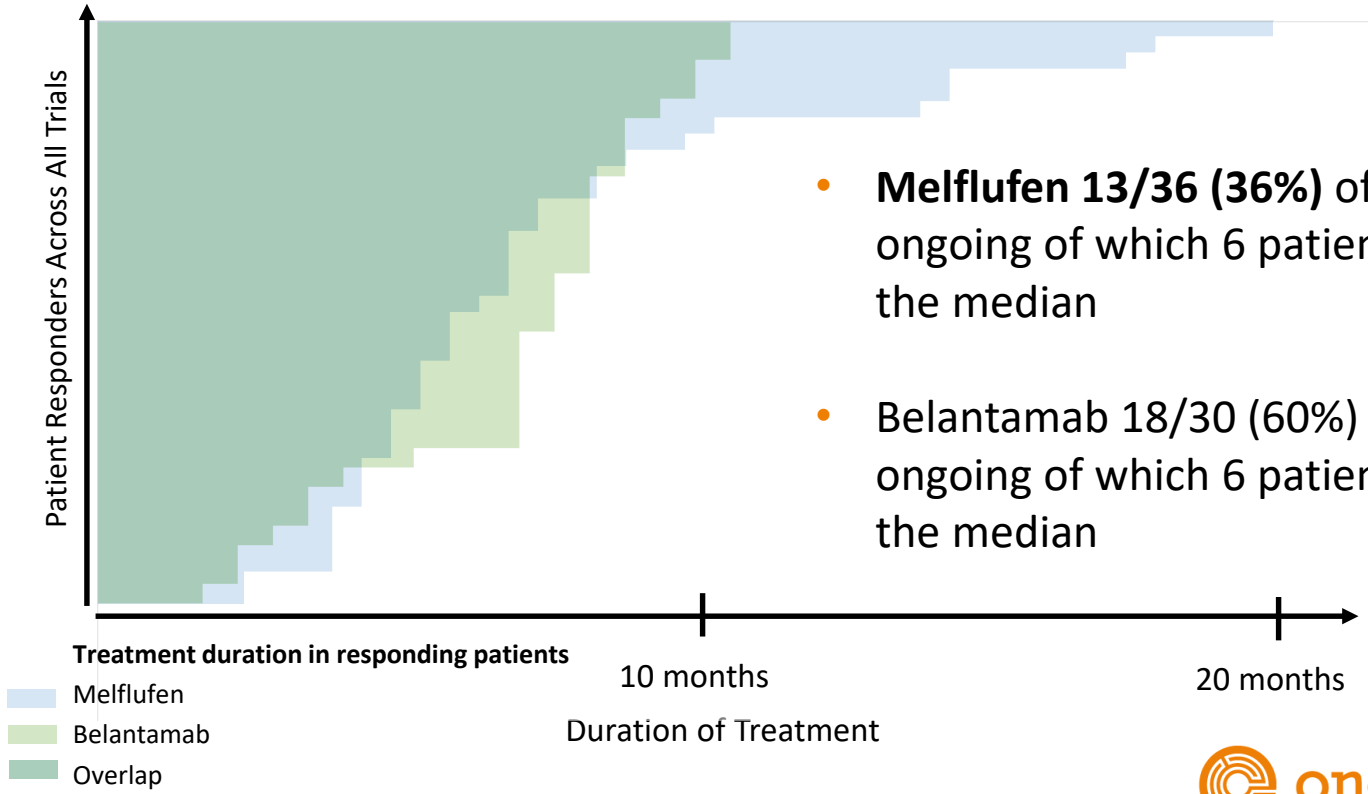
Duration of treatment:
Comparison between melflufen and selinexor



- **Melflufen 13/36 (36%)** of patients still ongoing of which 6 patients still can effect the median
- Selinexor 5/32 (16%) of patients still ongoing of which 0 patients can effect the median

Source: NEJM 2019, Melflufen Data Presentation, ASH 2019

Duration of treatment:
Comparison between melflufen and belantamab



- **Melflufen 13/36 (36%)** of patients still ongoing of which 6 patients still can effect the median
- Belantamab 18/30 (60%) of patients still ongoing of which 6 patients still can effect the median

Source: The Lancet 2019, Melflufen Data Presentation, ASH 2019

Requirements for success in Relapsed Refractory Multiple Myeloma

MUST HAVE CHARACTERISTICS

- Single agent +/- steroid activity in multi-refractory patients of >20% Overall Response Rate
- Single agent +/- steroid approval in refractory patients
- Efficacy synergy in combination with other main myeloma drugs with good tolerability
- No major quality of life/ tolerability issues
- No co-morbidity limitations

NICE TO HAVE CHARACTERISTICS

- Easy administration schedule

Proven single agent activity

Pomalyst

DARZALEX

Comorbidity or tolerability limitations

Kyprolis

FARYDAK (panobinostat) capsules 10mg/15mg/20mg

Limited to no single agent data

NINLARO

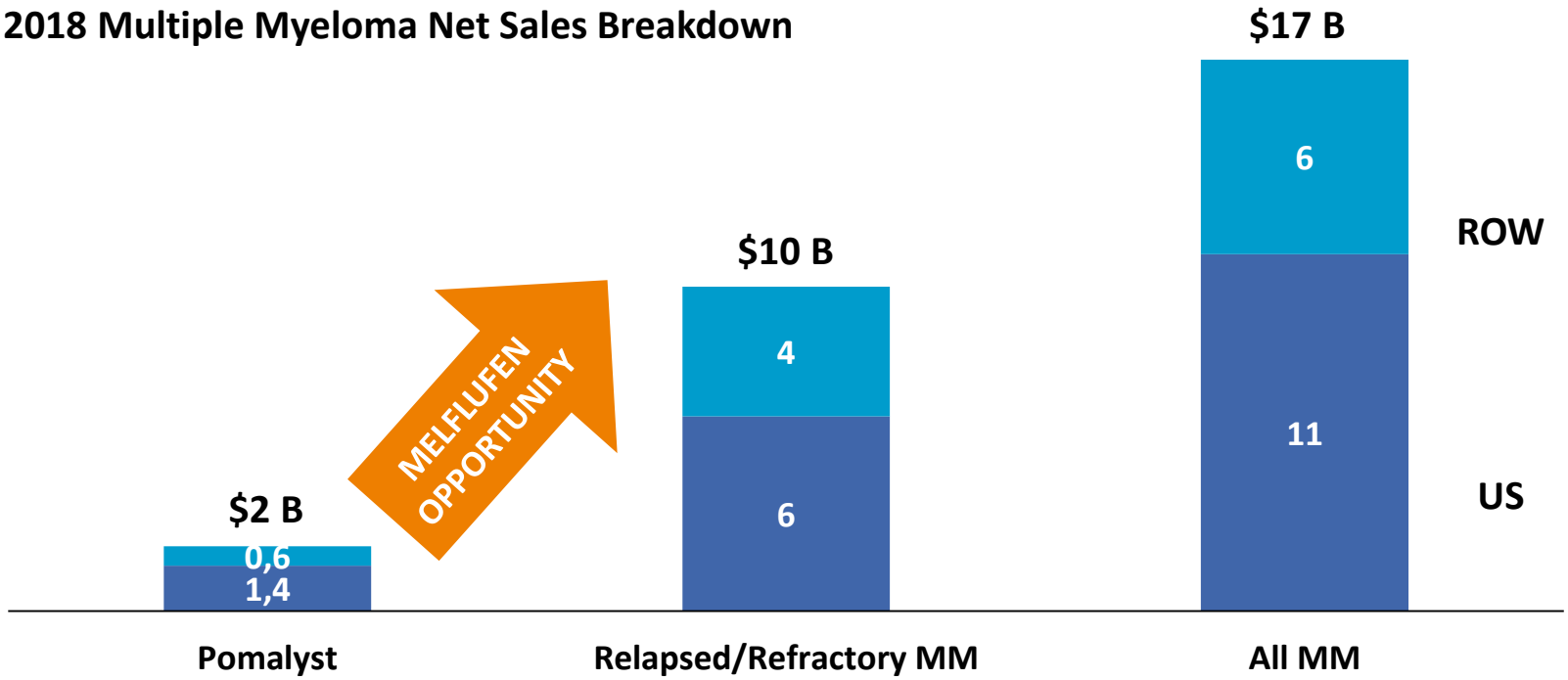
Empliciti (elotuzumab)

Development program for Melflufen is designed to support its potential as a new agent after IMiD and PI failure

MUST HAVE CHARACTERISTICS	MELFLUFEN
Single agent +/- steroid activity in multi-refractory patients of >20% Overall Response Rate	O-12-M1 showed an ORR of 31% and HORIZON an ORR of 29% in multi-refractory patients
Single agent +/- steroid approval in refractory patients	OCEAN head to head study vs. Pomalyst/dex is designed for approval
Efficacy synergy in combination with other main myeloma drugs with good tolerability	ANCHOR shows excellent synergy and good tolerability with daratumumab and bortezomib (early data)
No major quality of life/ tolerability issues	Good QoL with almost no non-hematological AEs
No co-morbidity limitations	No co-morbidity or drug-drug interactions limitations
NICE TO HAVE CHARACTERISTICS	
Easy administration schedule	One 30-minute infusion every 28 days

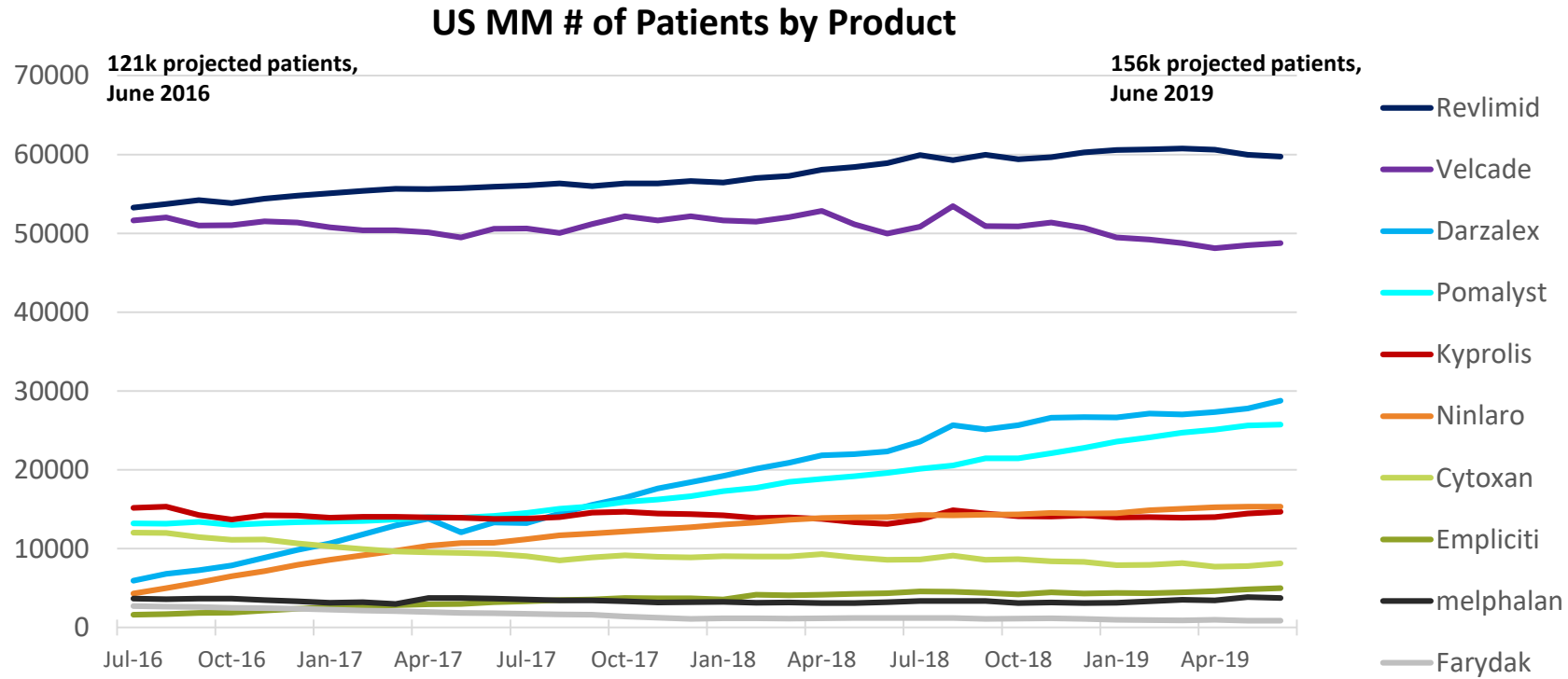
Melflufen opportunity in Relapsed Refractory Multiple Myeloma

– 2018 Multiple Myeloma Net Sales Breakdown



Source: EvaluatePharma, Intrinsiq, company analysis

Newer products used in addition to, not in place of, older products as survival improves



Source: Intrinsiq MAT, June 2019

Recent highlights

Clinical programs progressing

- HORIZON fully enrolled in September
- ANCHOR meflufen + daratumumab arm fully enrolled in September
- BRIDGE trial expanded to include patients with severe renal impairment
- OCEAN on track to recruit last patient in Q1-20

Promising clinical data presented at ASH and IMW

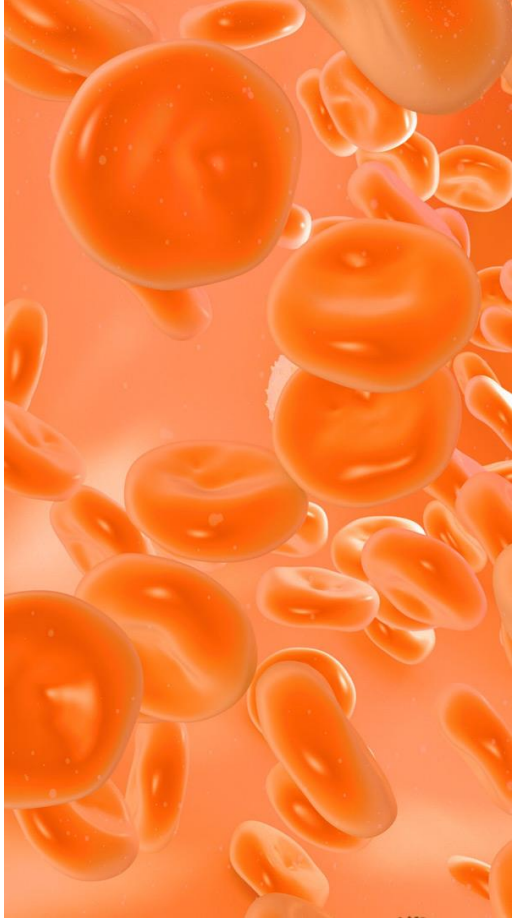
- ORR of 29% in HORIZON, 24% in triple-class refractory myeloma patients
- Progression-free survival of 14.3 months for melflufen in combination with daratumumab in RRMM (ANCHOR study)

NDA submission process on track with submission planned during first half of 2020

- Application for accelerated approval in triple class refractory patients based on HORIZON data
- Pre-NDA meeting recently held with the FDA confirming plans

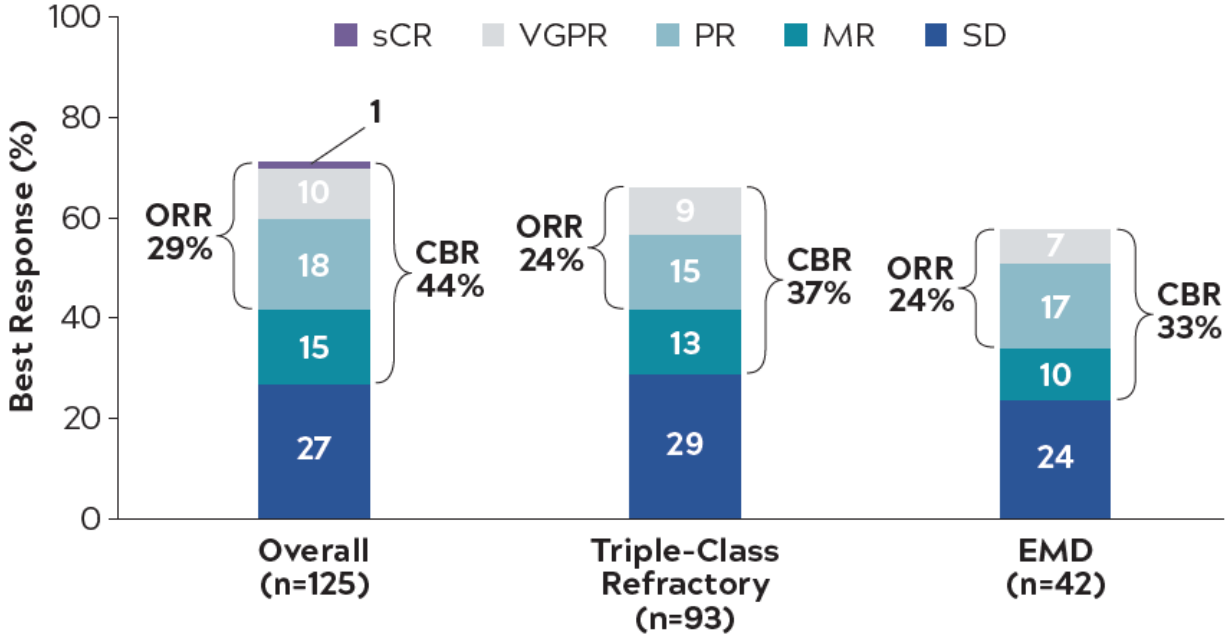
Key staff members recruited

- Klaas Bakker, MD, PhD, started as Chief Medical Officer in early November
- Joe Horvat started as President North America in early December



Promising overall response rates in both triple-class refractory patients and patients with EMD at relapse

HORIZON

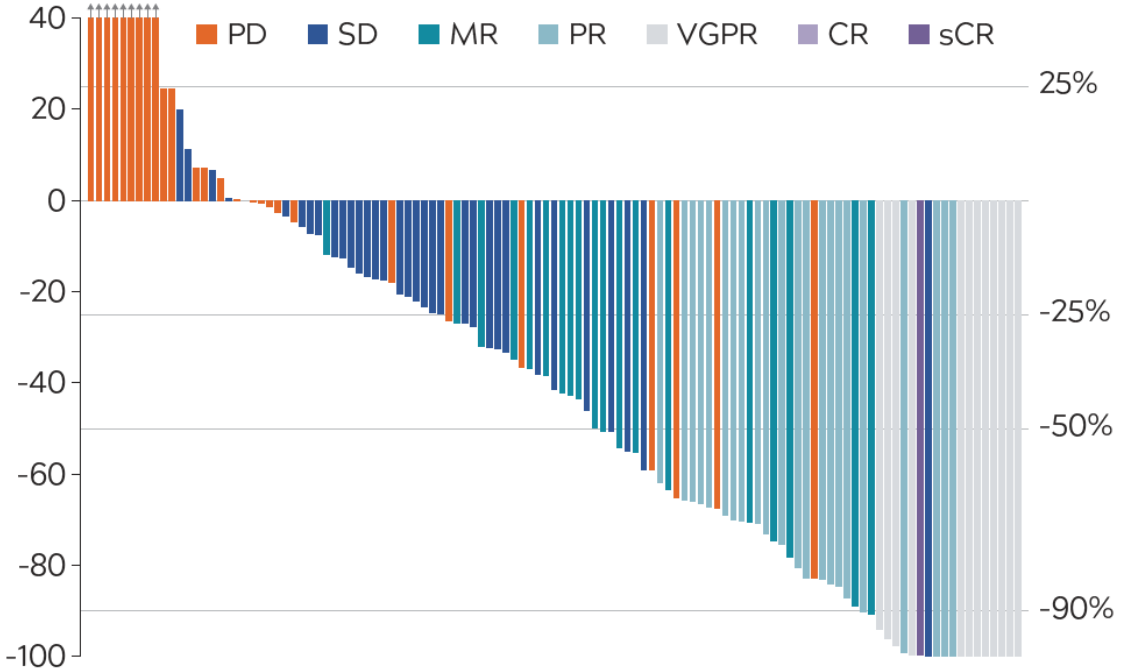


[a]Response was investigator assessed.

CBR, clinical benefit rate; EMD, extramedullary disease; IMWG, International Myeloma Working Group; MR, minimal response; ORR, overall response rate; PR, partial response; sCR, stringent complete response; SD, stable disease; VGPR, very good partial response.

Source: Mateos MV, et al. ASH 2019. #1883

Disease was stabilized in 83% of patients[a]



[a]In total, 10 patients had missing M-protein data.
M-protein, monoclonal protein; MR, minimal response; PD, progressive disease; PR, partial response; sCR, stringent complete response; SD, stable disease; VGPR, very good partial response.

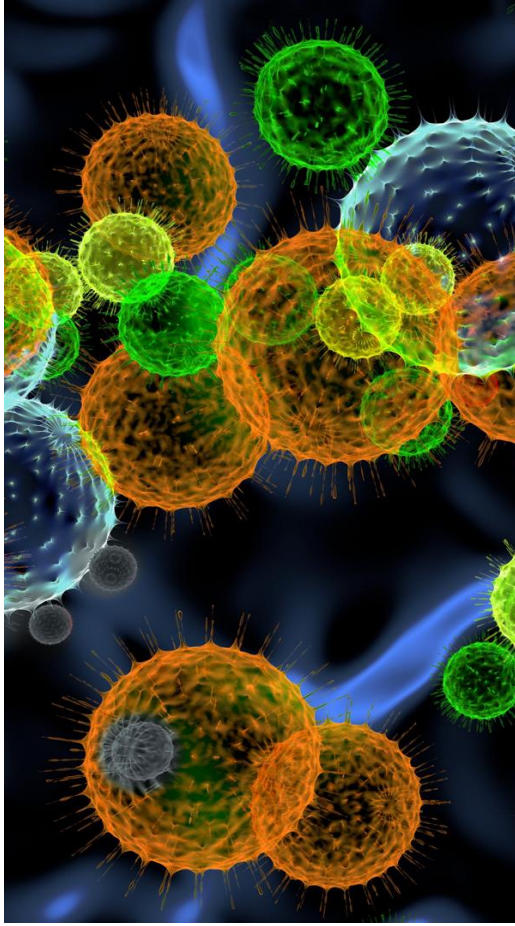
Source: Mateos MV, et al. ASH 2019. #1883

- Overall, 83% of the patients had a reduction of M-protein despite all patients having progressing disease at study entry

Encouraging data for melflufen in combination with daratumumab

Summary of combination with daratumumab – n=33

- Median of 2 prior lines of therapy
- True RRMM population (not maintenance refractory) – 39% had disease progression while on last line of therapy and 60% high-risk cytogenetics
- **ORR of 76%** with good tolerability and deepening responses - 22 patients ongoing
- Median **PFS of 14.3 months**

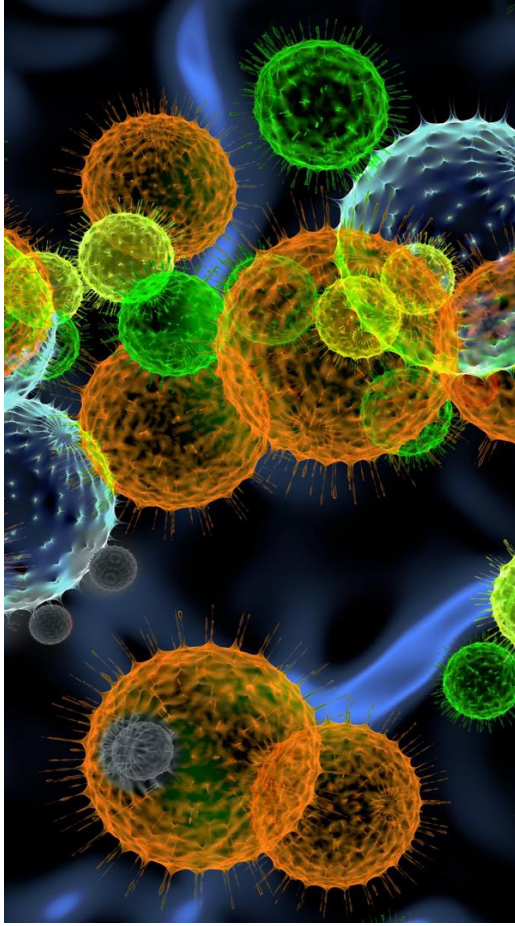


ANCHOR

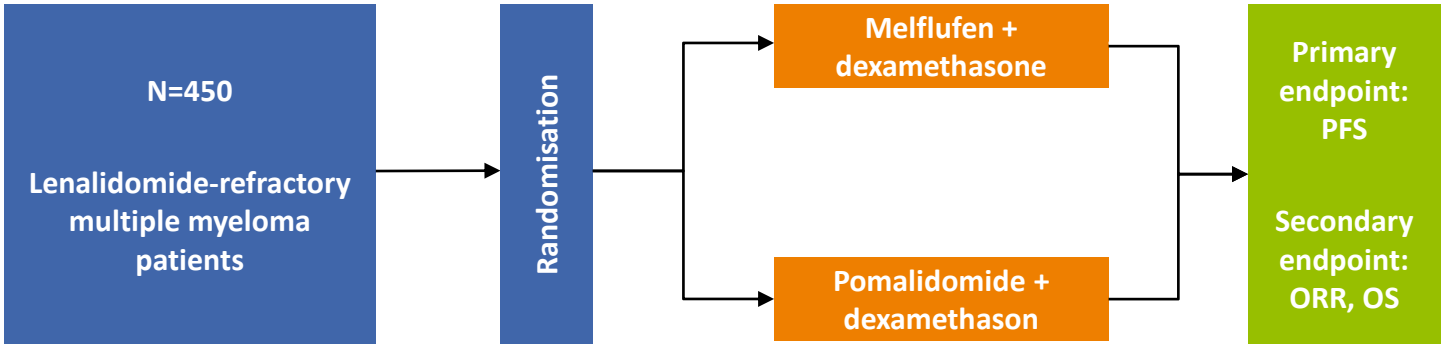
Emerging data for melflufen in combination with bortezomib

Summary of combination with bortezomib – n=6

- Elderly population – Median of 2.5 prior lines of therapy
- True RRMM population (not maintenance refractory) – 50% had disease progression while on last line of therapy
- 4/6 responded on therapy (**ORR 67%**) with good tolerability and deepening responses – 3 pts ongoing
- Median PFS not reached with the longest patient on treatment for 16 months



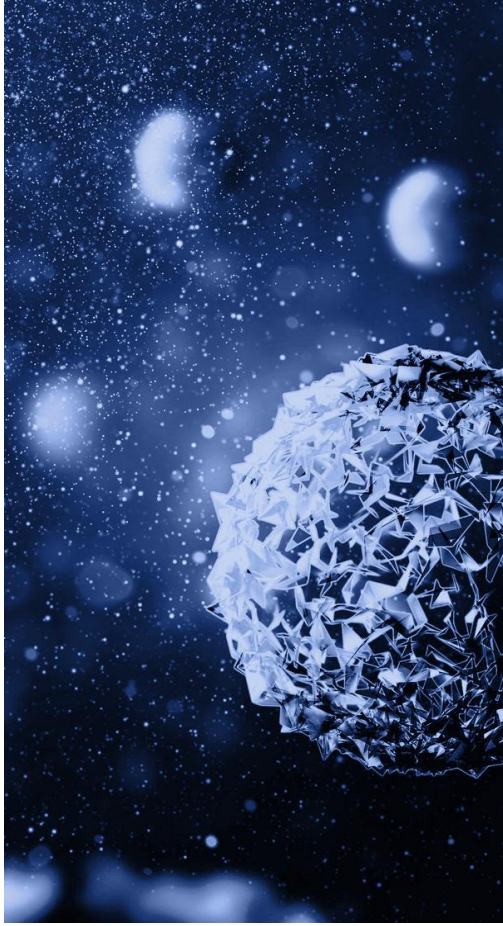
Data to date provide high conviction for success in our ongoing phase 3 trial OCEAN



RRMM data from pomalidomide FDA label and O-12-M1 study

Treatment	ORR	CBR	Median PFS	Median DOR	Median OS
Melflufen + Dexamethasone	31%	49%	5.7 months	8.8 months	20.7 months
Pomalidomide + Dexamethasone	24%	NR	3.6 months	7.0 months	12.4 months

The phase 3 combination trial LIGHTHOUSE will be of high strategic importance



Second phase 3 trial with melflufen in multiple myeloma

- Melflufen + daratumumab vs daratumumab randomized 2:1
- Subcutaneous administration of daratumumab

Two objectives:

- Expand market potential – extend label with melflufen in combination with daratumumab in earlier line patients
- De-risk the development program – add a third trial that can result in market registration in the EU and US

We are in final preparations of the study and aim to start the study early 2020

LIGHTHOUSE

Our new indication AL Amyloidosis

Similarly to myeloma, AL amyloidosis is a disease of the B-cell system

- Antibody light-chains misfold and form deposits in multiple organs with organ dysfunction as a result
- Orphan disease - 30-45,000 patients in the USA and the EU[1]
- Majority of patients >65 years old

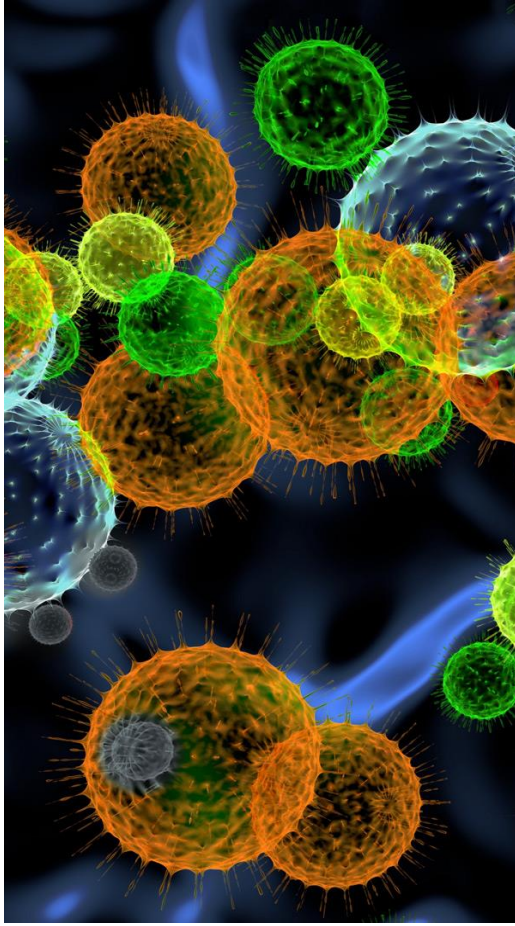
Similar drug use as for myeloma – drugs that are efficacious in myeloma are most of the time also used in AL amyloidosis

Limited treatment options - with median overall survival of 1.5-2.0 years (1995-2013) with a trend towards improved survival (3.5 years for the period 2010-2013)[2]

Strong pre-clinical data presented at ASH 2019 with distinct differentiation vis-à-vis other drugs including alkylating agents – pre-clinical data translates well in AL amyloidosis

Phase I+II study – up to 45 patients across both phases

The study to start imminently, patient screening ongoing



Source: 1) Quock et. al, Blood Advances, May 2018, 2) Weiss et. al, Blood, 2016

The coming quarters will be very information rich

Dec 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020
✓ Data from HORIZON, ANCHOR at ASH	FPI LIGHTHOUSE	LPI BRIDGE	Top-line results OCEAN	Potential accelerated approval in US
	LPI OCEAN	New data and updates at EHA	LPI ANCHOR	Potential Launch in US
	FPI Amyloidosis Trial	NDA submission		

Summary

Significant unmet needs in Multiple Myeloma

- $17 B orphan market

Melflufen has the potential to become a new treatment backbone for relapsed refractory multiple myeloma

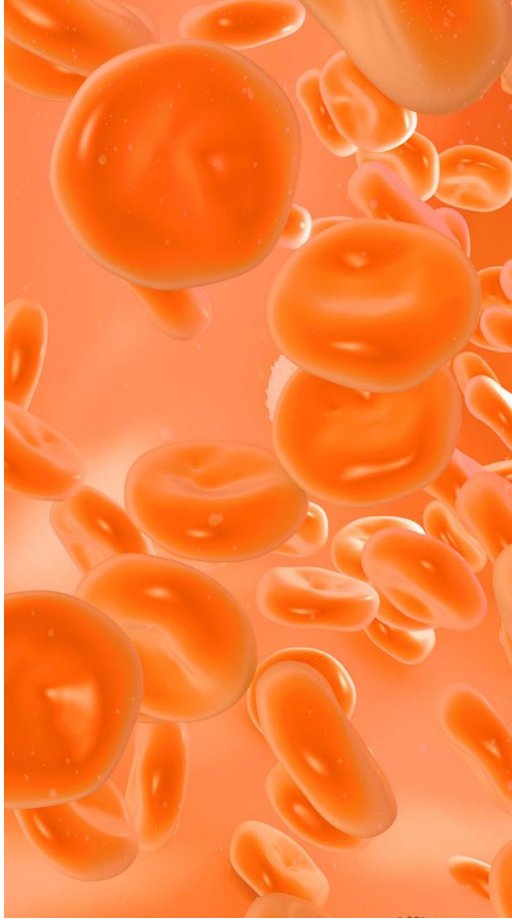
- Phase 2 study, O-12-M1, showed very strong survival data
- Both phase 2 studies, HORIZON and ANCHOR show strong overall response (ORR) data and competitive profile for progression free survival (PFS)
- Generally well tolerated giving patients good quality of life

Late stage development program with multiple ways to get approval

- Submission for accelerated approval for triple-class refractory patients in the US targeted during H1 2020 based on HORIZON data
- Phase 3-trial OCEAN expected to be fully enrolled Q1 2020
- Additional Phase 3-trial, LIGHTHOUSE will start early 2020

Strong financial position

- Cash position SEK ~1.1 B ($ 118 M) as of September 30



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