Oncopeptides

Stockholm Corporate Finance Life Science Seminar

March 11, 2020

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Oncopeptides at a glance

Develops targeted cancer treatments

- Proprietary peptide-conjugated compounds
- Lead compound Melflufen a peptide-conjugated drug 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

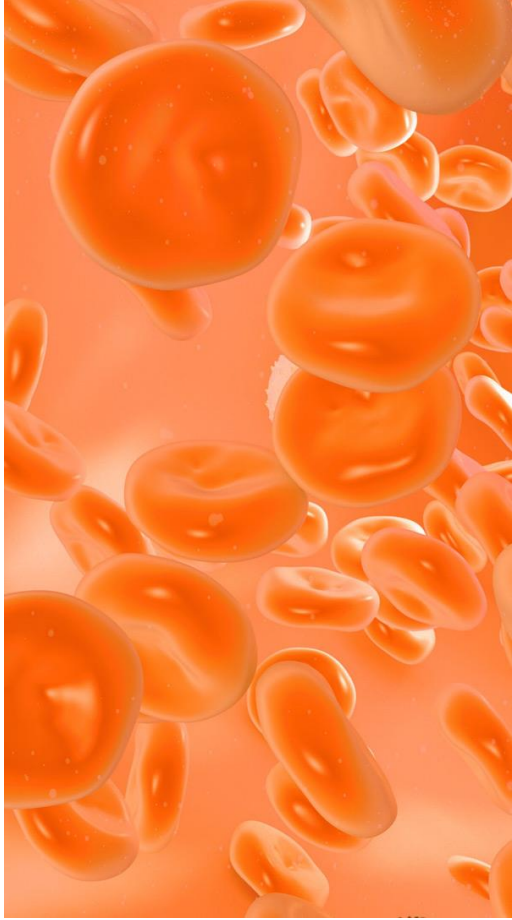
- Approximately 450 patients at 140 sites
- Two additional supporting studies ongoing. Additional phase 3 called LIGHTHOUSE will start early 2020

New indications and NCEs in development

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

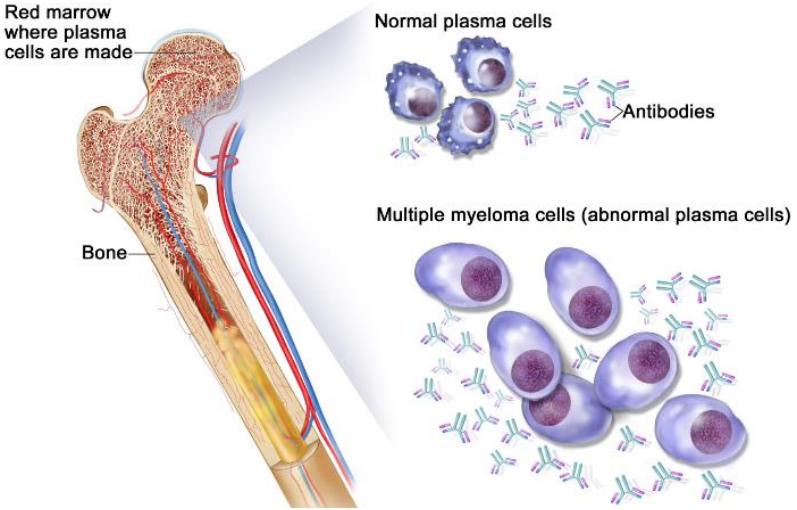
Listed on NASDAQ Stockholm, strong financial position

- Market cap: SEK 5.8 B
- Cash position: SEK 926 M as of December 31

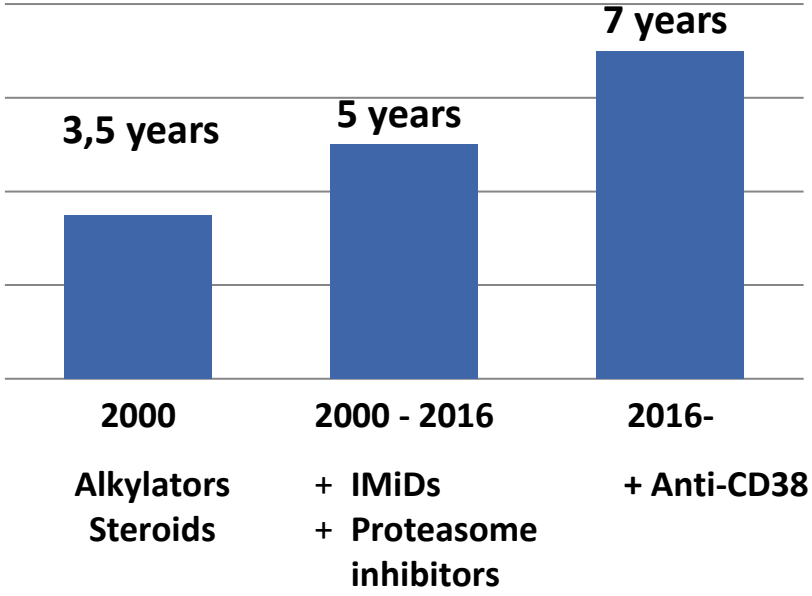


Multiple Myeloma is a hematological cancer without cure

Myeloma – Uncontrolled plasma cell proliferation



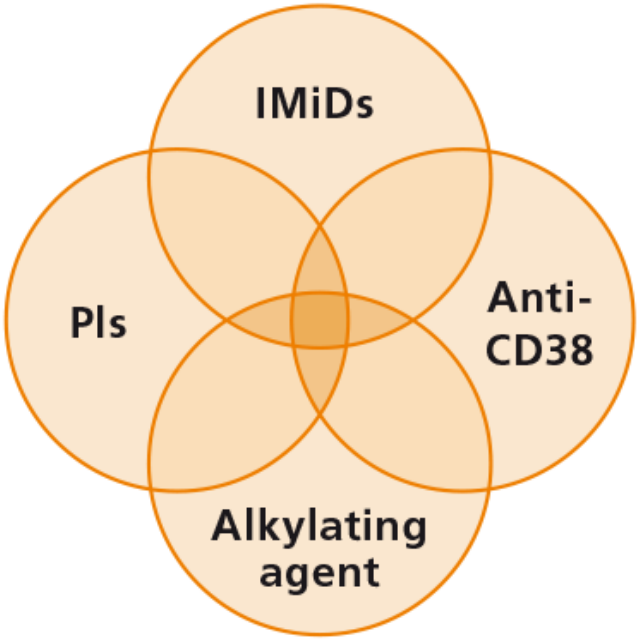
Median Survival increasing with more available treatment options



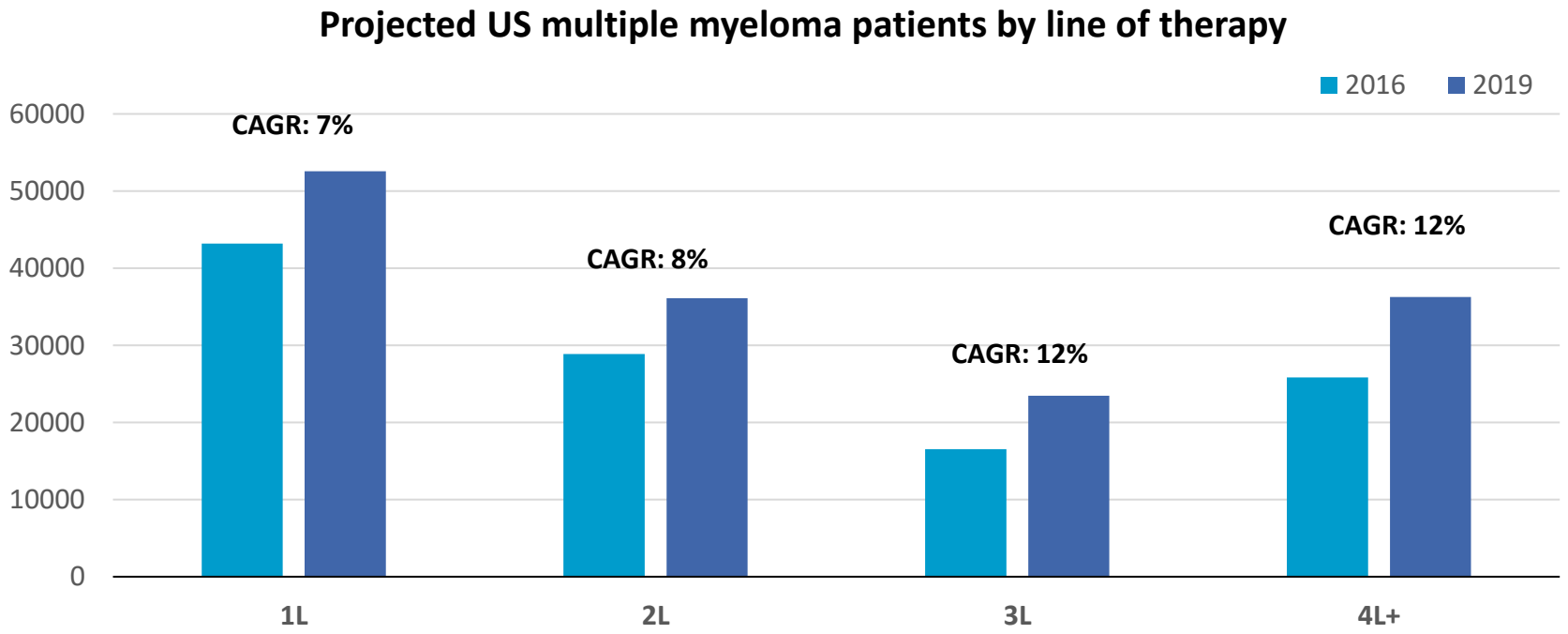
Source: IntrinsiQ and Kantar Health.

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

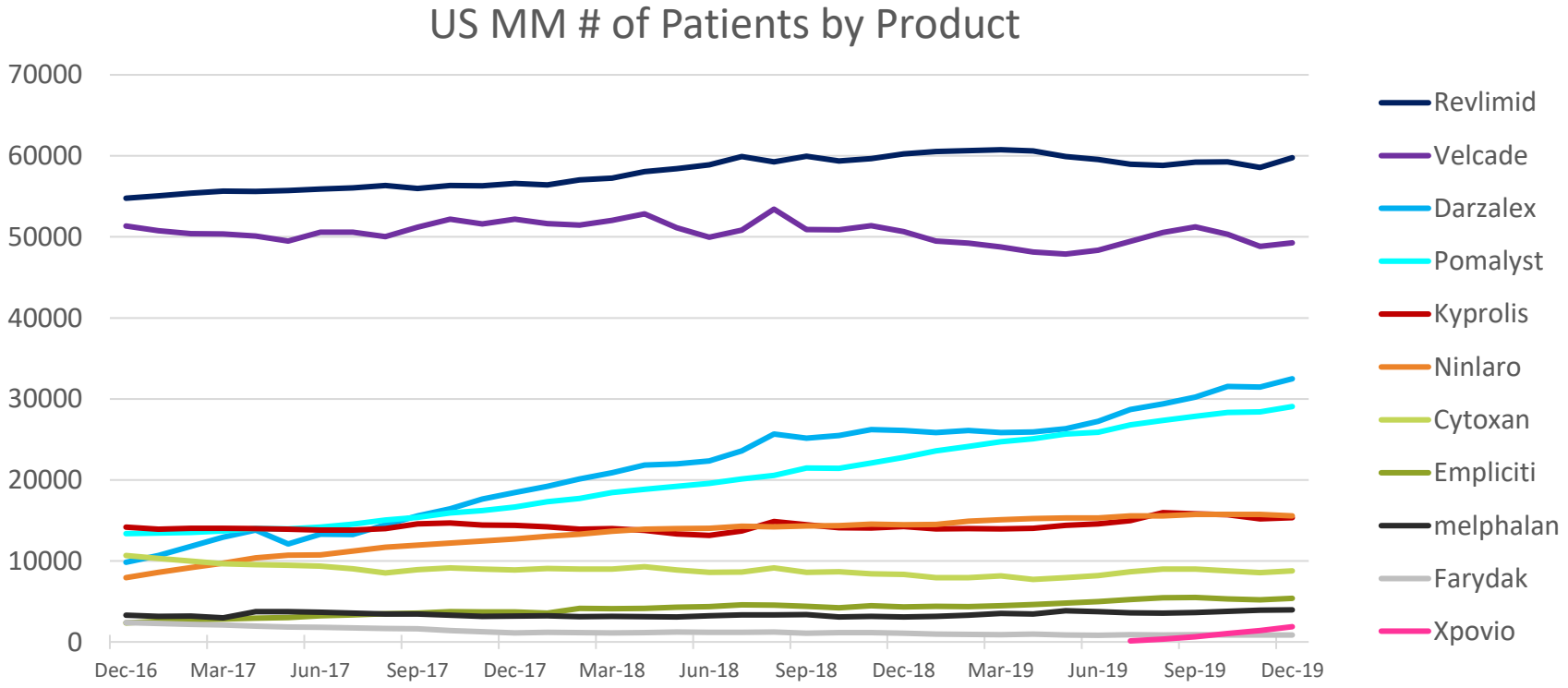


Improved outcomes lead to fast growth in number of treated patients in later lines of therapy



Source: Intrinsiq MAT 2019
Note: 3-yr annual growth rate for 4Q2016-4Q2019

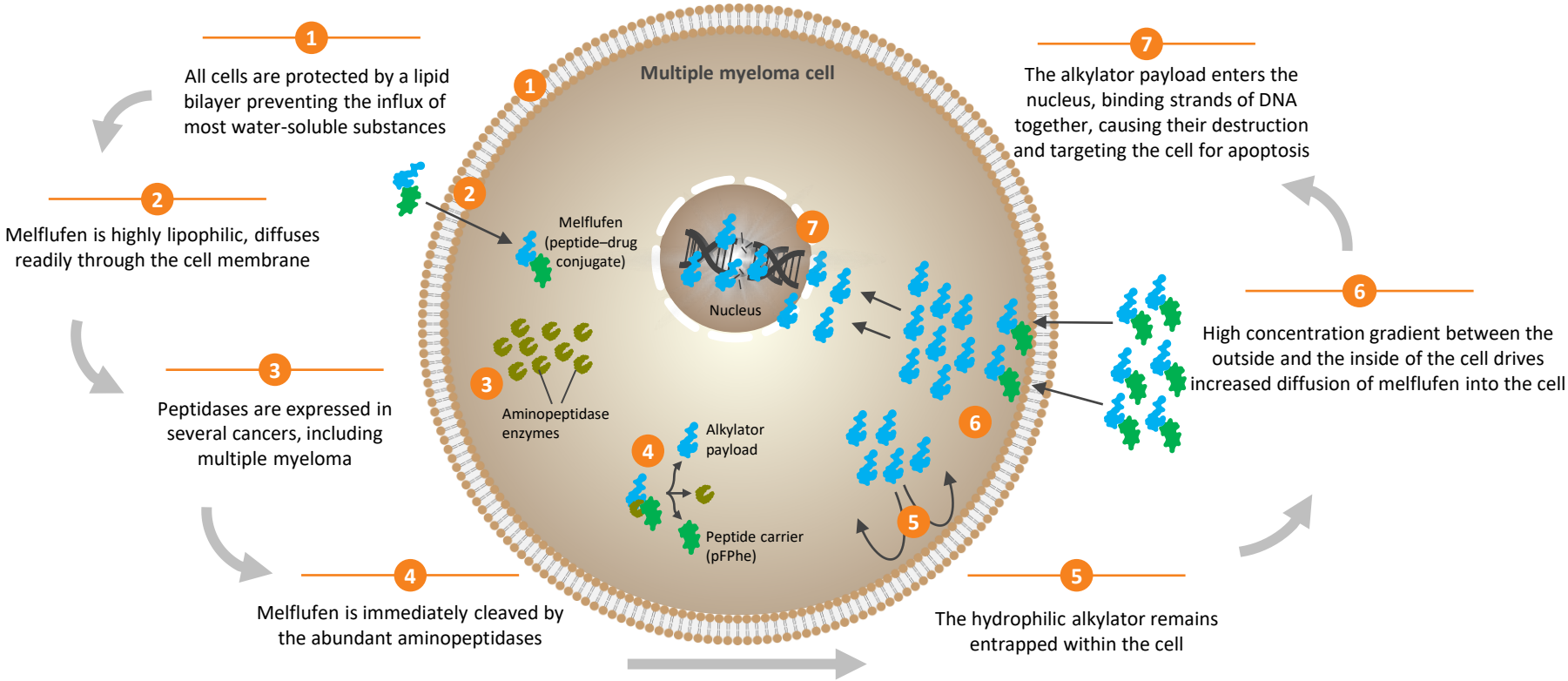
Newer products used in addition to older products as survival improves



Source: Intrinsiq MAT, Dec 2019

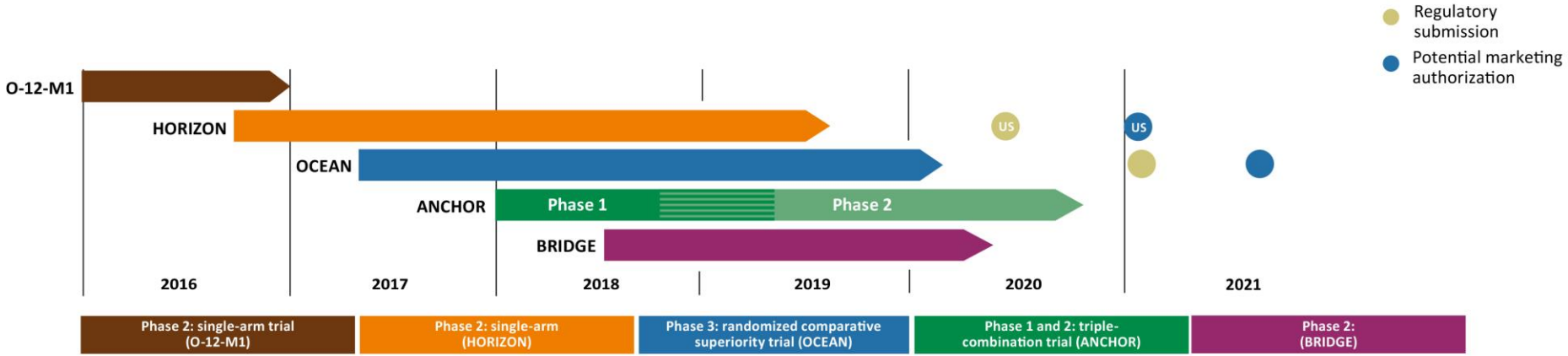
Melflufen is a novel peptide-drug conjugate

- 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

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

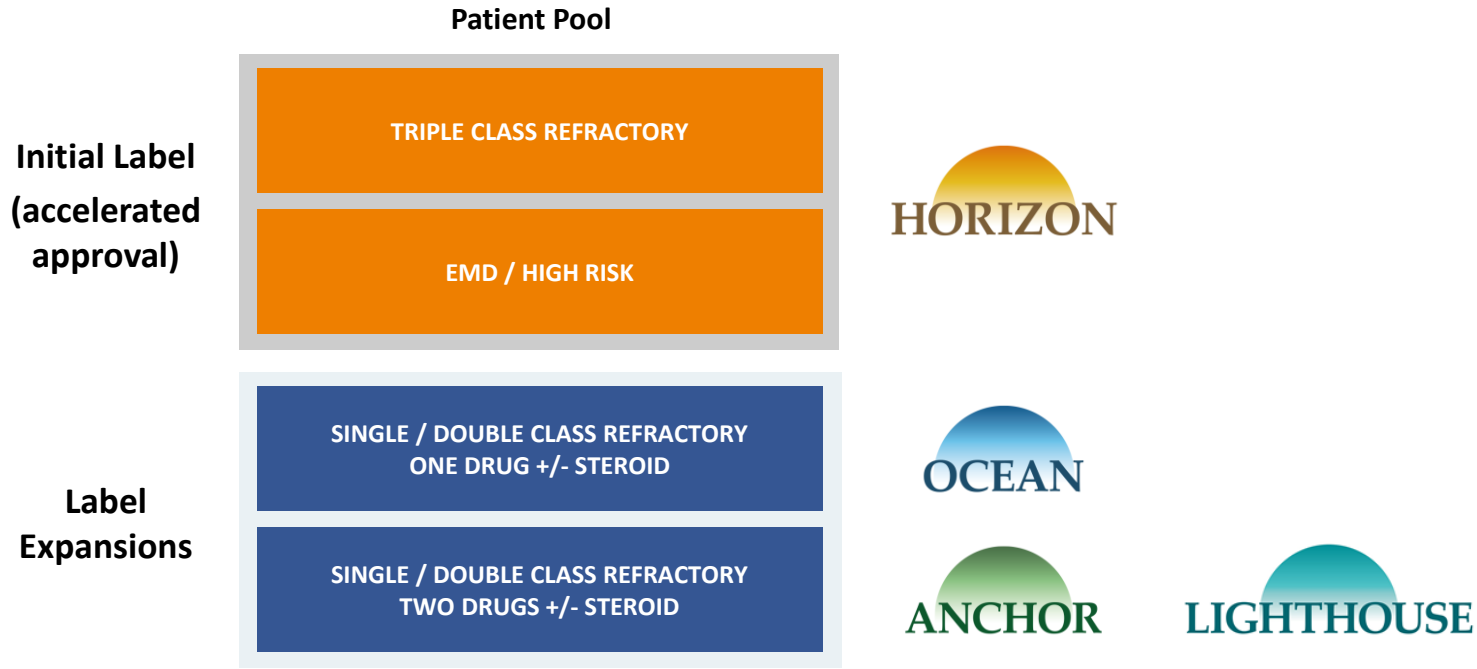
NINLARO

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

Label journey with current development program in myeloma

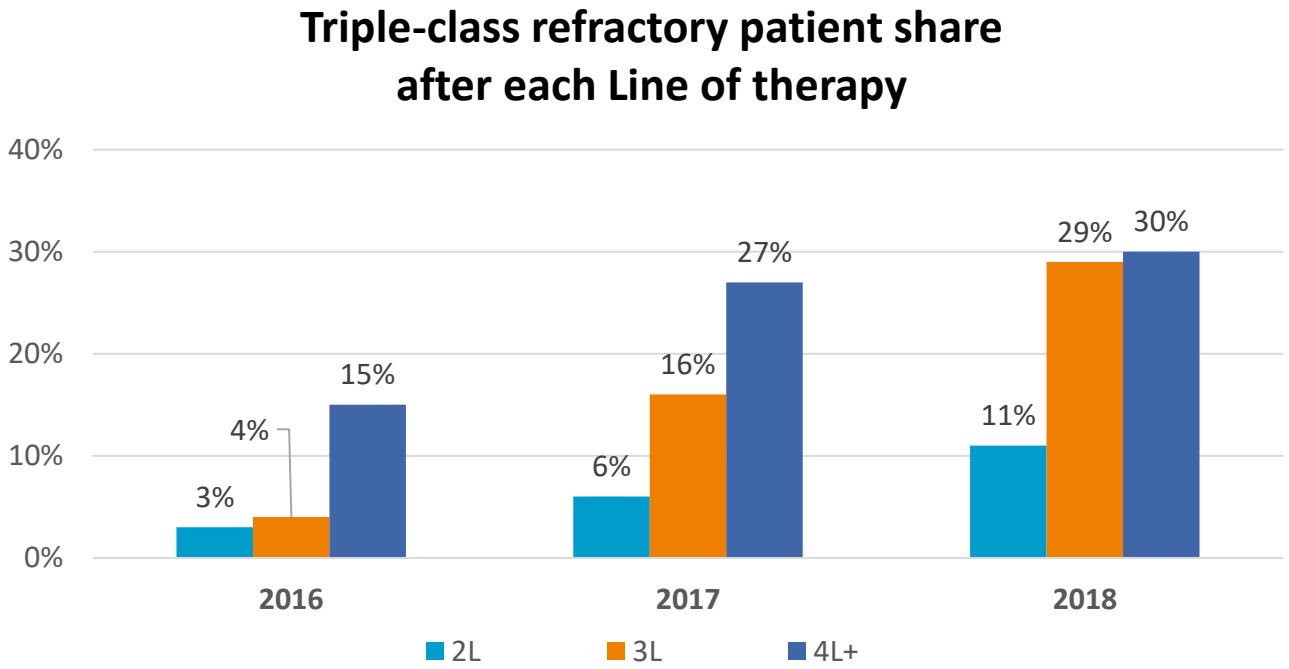


Melflufen triple-class RRMM data highly competitive

HORIZON

	Melflufen	Xpovio Karyopharm US approval July 2019	Belantamab GSK In filing
Number of patients studied	93	122	97
Overall Response/Clinical Benefit Rate	24%/37%	25%/39%	31%/34%
Duration of response	7.5 months	4.4 months	NR (≈7-8months)
Progression-free Survival	4.0 months	3.7 months	2.9 months
Overall survival	11.3 months	8.0 months	NR (≈10months)
Share of patients with EMD	34%	22%	23%
Serious Adverse Event 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%

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

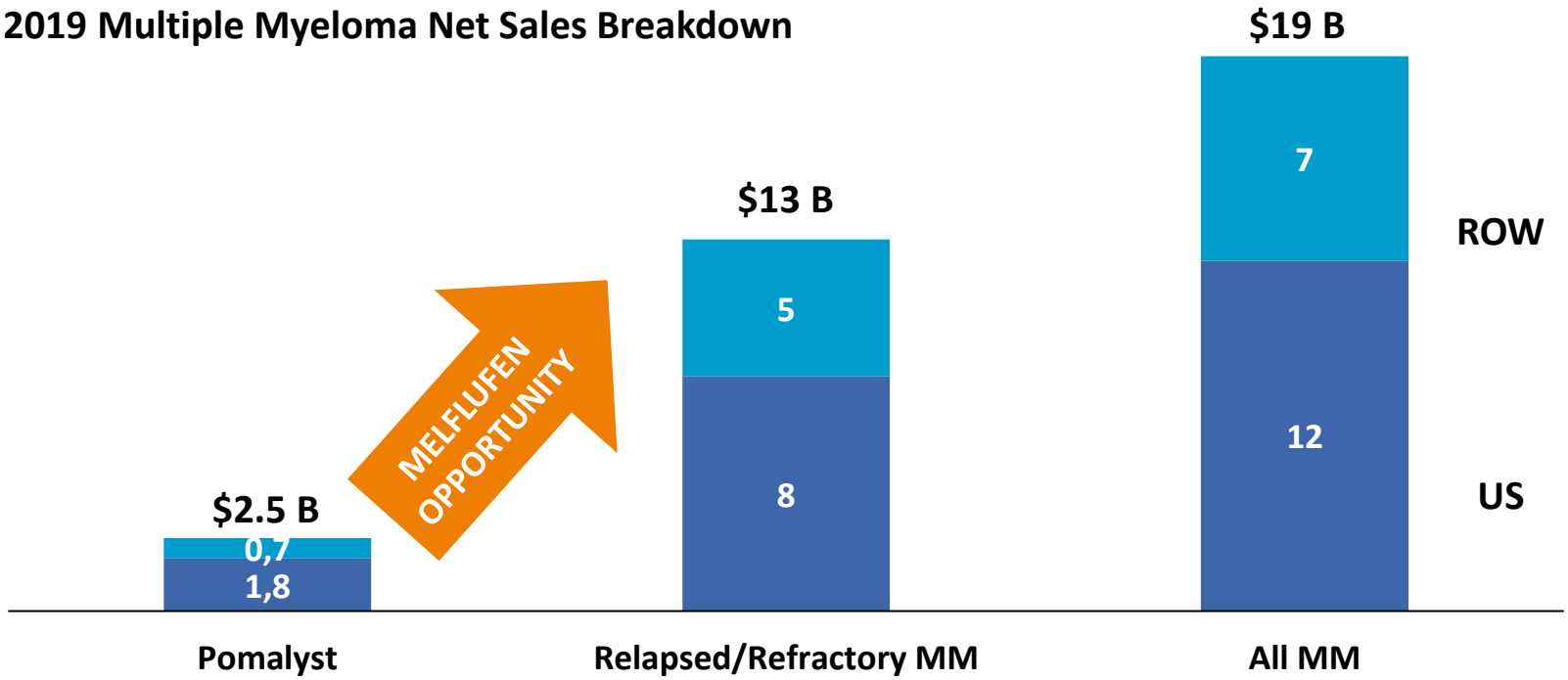


Estimated >20,000 Triple-class refractory patients in the US and growing

Source: Company analysis of IQVIA patient data

Melflufen opportunity in Relapsed Refractory Multiple Myeloma

– 2019 Multiple Myeloma Net Sales Breakdown



Source: EvaluatePharma, Intrinsiq, company analysis

Recent highlights

Clinical programs progressing

- AL Amyloidosis study initiated, first patient to be dosed shortly
- The phase 3 study, OCEAN, on track to recruit last patient in Q1-20
- LIGTHOUSE, phase 3 combination study to start in the coming months
- HORIZON, targeting submission during Q2-20

Promising clinical data presented at ASH in December

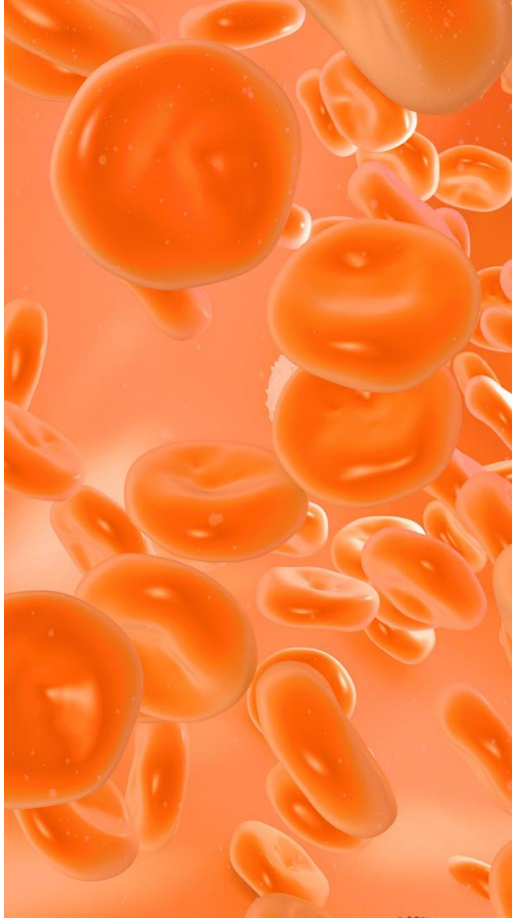
- ORR of 29% in HORIZON, 24% in triple-class refractory myeloma patients
- Progression-free survival of 14.3 months for melflufen in combination with daratumumab in RRMM (ANCHOR study) presented

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

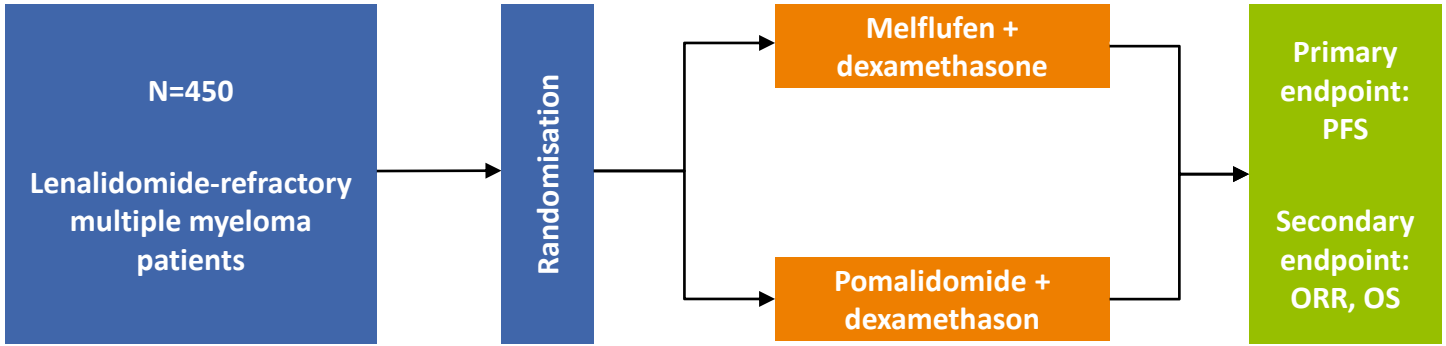
- Pre-NDA meeting held with the FDA in December confirming plans to submit on all 157 patient included in the study
- Application for accelerated approval in triple class refractory on track for Q2 2020

Key staff members recruited

- In the process of preparing for a potential launch in the United States, Joseph Horvat was appointed as President North America



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

Pomalidomide shares resistance mechanism with lenalidomide

Average IMiD free period was significant in pomalidomide registration study

- Only 29% received lenalidomide as last treatment

Lenalidomide used more aggressively today

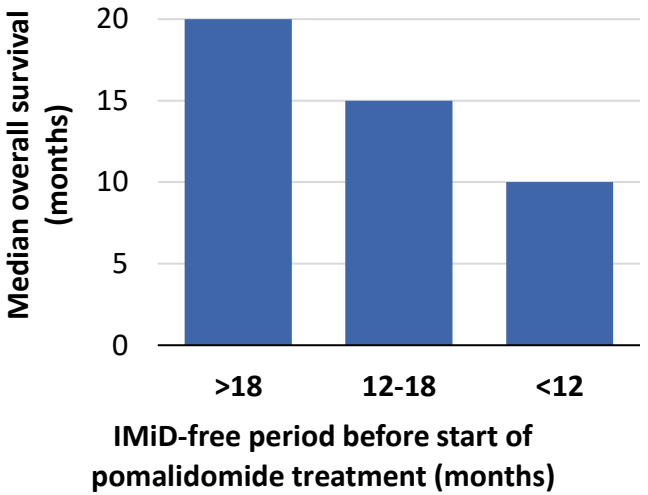
- Median maintenance duration 24 months instead of 10 months

In OCEAN all patients have failed on lenalidomide within 18 months

- Vast majority has lenalidomide as last treatment

No assumptions have been made in OCEAN power calculation to account for increased cross resistance

Pomalidomide efficacy decreases for recent lenalidomide failures

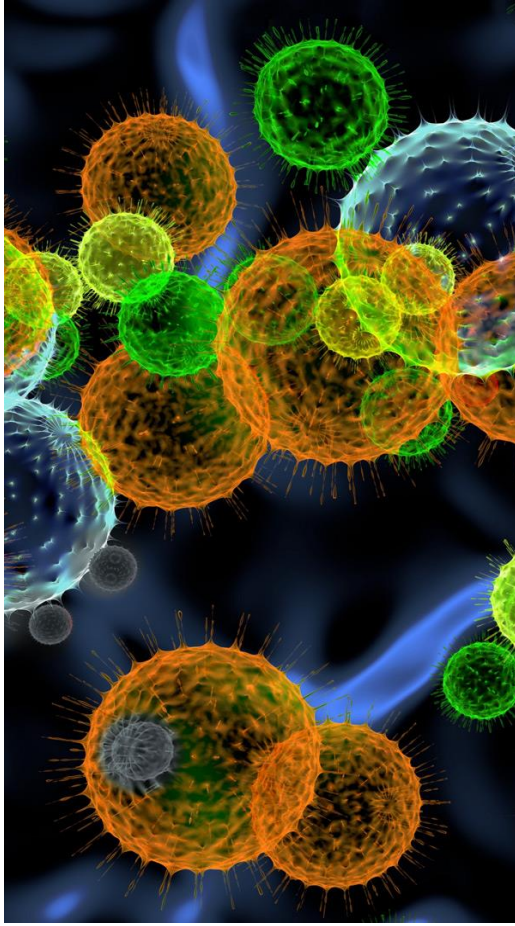


Source: Pomalidomide with Low Dose Dexamethasone Is Effective Irrespective of Primary or Secondary Resistance to Lenalidomide but the IMiD-Free Interval Is Important (Dimopoulos et. al. ASH poster 2016).

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

Combination study LIGHTHOUSE

LIGHTHOUSE

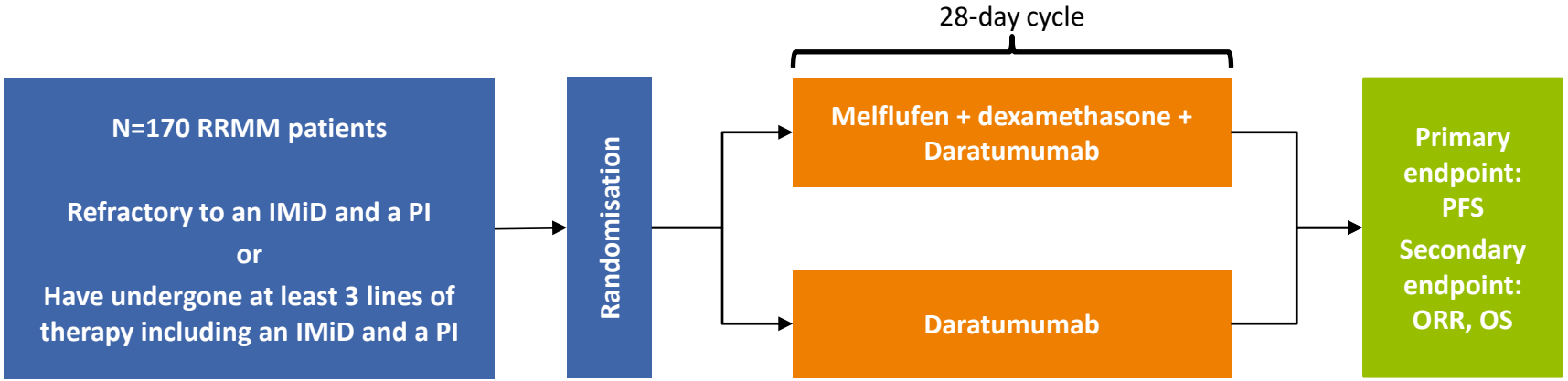
Our second confirmatory phase 3 study – final preparations ongoing

Second phase 3 study with melflufen in multiple myeloma

- Melflufen + daratumumab vs daratumumab randomized 2:1

Two objectives:

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



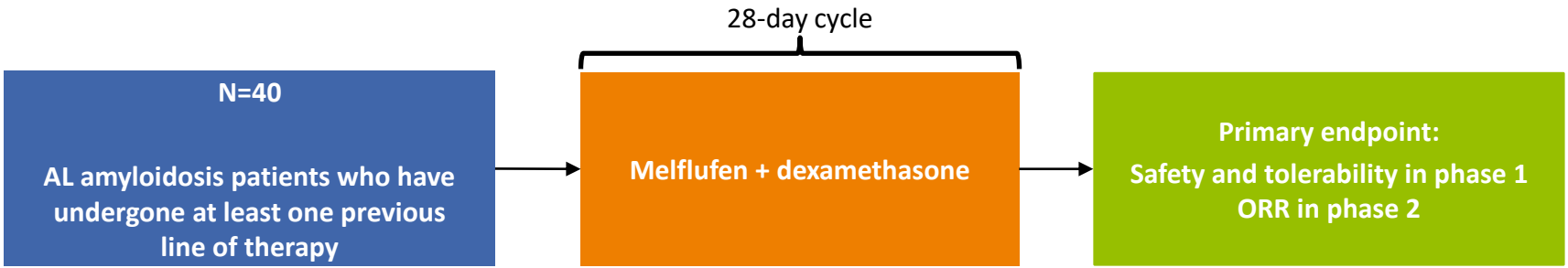
Phase 1/2 study in AL amyloidosis initiated - patients are in screening

Similar 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)]



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

The coming quarters will be very information rich

Q1 2020	Q2 2020	Q3 2020	Q4 2020
First patient in Amyloidosis study	Last patient in BRIDGE	Top-line results OCEAN	Potential accelerated approval in US
Last patient in OCEAN	New data and updates at EHA	Last patient in ANCHOR	Potential Launch in US
First patient in LIGHTHOUSE	NDA submission		

Summary

Significant unmet needs in Multiple Myeloma

- $19 B orphan market

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

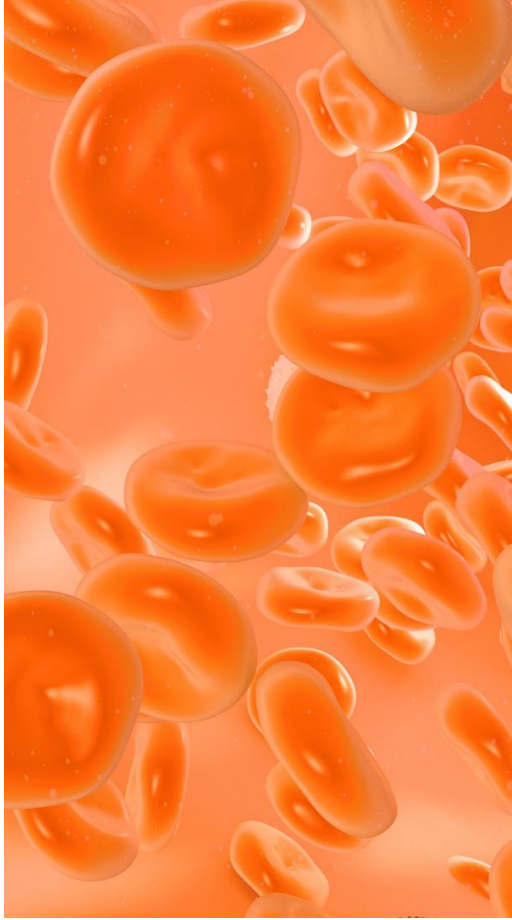
- Phase 2 study, O-12-M1, showed very strong survival data
- Both phase 2 studies, HORIZON and ANCHOR show strong overall response (ORR) data and competitive profile for progression-free survival (PFS)
- Generally well tolerated giving patients good quality of life

Late stage development program with multiple ways to get approval

- Submission for accelerated approval for triple-class refractory patients in the US targeted during Q2 2020 based on HORIZON data
- Phase 3 study OCEAN expected to be fully enrolled Q1 2020
- Additional Phase 3 study, LIGHTHOUSE will start in the coming months

Strong financial position

- Cash position: SEK 926 M ($ 95 M) as of December 31



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