Oncopeptides

Company presentation October, 2019

Disclaimer

IMPORTANT: You must read the following before continuing. The following applies to this document, the oral presentation of the information in this document by Oncopeptides AB (the "Company") or any person on behalf of the Company, and any question-and-answer session that follows the oral presentation (collectively, the "Information"). In accessing the Information, you agree to be bound by the following terms and conditions.

The Information is confidential and may not be reproduced, redistributed, published or passed on to any other person, directly or indirectly, in whole or in part, for any purpose. This document may not be removed from the premises. If this document has been received in error it must be returned immediately to the Company.

The Information is not intended for potential investors and does not constitute or form part of, and should not be construed as an offer or the solicitation of an offer to subscribe for or purchase securities of the Company, and nothing contained therein shall form the basis of or be relied on in connection with any contract or commitment whatsoever. This document and its contents may not be viewed by persons within the United States or "U.S. Persons" (as defined in Regulation S under the Securities Act of 1933, as amended (the "Securities Act") unless they are qualified institutional buyers "QIBs" as defined in Rule 144A under the Securities Act. By accessing the Information, you represent that you are (i): a non-U.S. person that is outside the United States or (ii) a QIB. This document and its contents may not be viewed by persons within the United Kingdom unless they are persons with professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 as amended (the "Order"), or high net worth entities falling within Article 49(2)(a) to (d) of the Order (each a "Relevant Person"). By accessing the Information, you represent that you are: (i) outside the United Kingdom or (ii) a Relevant Person.

The Information has been prepared by the Company, and no other party accepts any responsibility whatsoever, or makes any representation or warranty, express or implied, for the contents of the Information, including its accuracy, completeness or verification or for any other statement made or purported to be made in connection with the Company and nothing in this document or at this presentation shall be relied upon as a promise or representation in this respect, whether as to the past or the future.

The Information contains forward-looking statements. All statements other than statements of historical fact included in the Information are forward-looking statements. Forward-looking statements give the Company's current expectations and projections relating to its financial condition, results of operations, plans, objectives, future performance and business. These statements may include, without limitation, any statements preceded by, followed by or including words such as "target," "believe," "expect," "aim," "intend," "may," "anticipate," "estimate," "plan," "project," "will," "can have," "likely," "should," "would," "could" and other words and terms of similar meaning or the negative thereof. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors beyond the Company's control that could cause the Company's actual results, performance or achievements to be materially different from the expected results, performance or achievements expressed or implied by such forward-looking statements. Such forward-looking statements are based on numerous assumptions regarding the Company's present and future business strategies and the environment in which it will operate in the future.

No representation, warranty or undertaking, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the Information or the opinions contained therein. The Information has not been independently verified and will not be updated. The Information, including but not limited to forward-looking statements, applies only as of the date of this document and is not intended to give any assurances as to future results. The Company expressly disclaims any obligation or undertaking to disseminate any updates or revisions to the Information, including any financial data or forward-looking statements, and will not publicly release any revisions it may make to the Information that may result from any change in the Company's expectations, any change in events, conditions or circumstances on which these forward-looking statements are based, or other events or circumstances arising after the date of this document. Market data used in the Information not attributed to a specific source are estimates of the Company and have not been independently verified.

Oncopeptides at a glance

Develops targeted cancer treatments

- Proprietary peptidase-enhanced 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 Q1-20 based on ongoing phase 2 study HORIZON
- Triple-class refractory MM

Phase 3 expected to be fully enrolled in Q1 2020

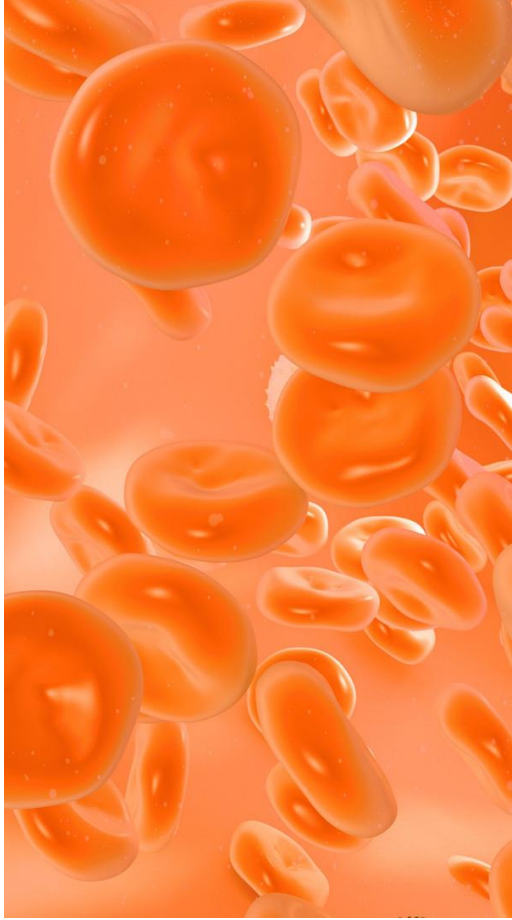
- Approximately 450 patients at 140 sites
- Two additional supporting trials ongoing, additional Phase 3 to be started around year-end

Listed on NASDAQ Stockholm, strong financial position

- Market cap: SEK 6.2 B ($ 625 M)
- Cash position: SEK 627 M ($ 64 M) as of June 30, SEK 683 M ($ 69 M) raised in early July

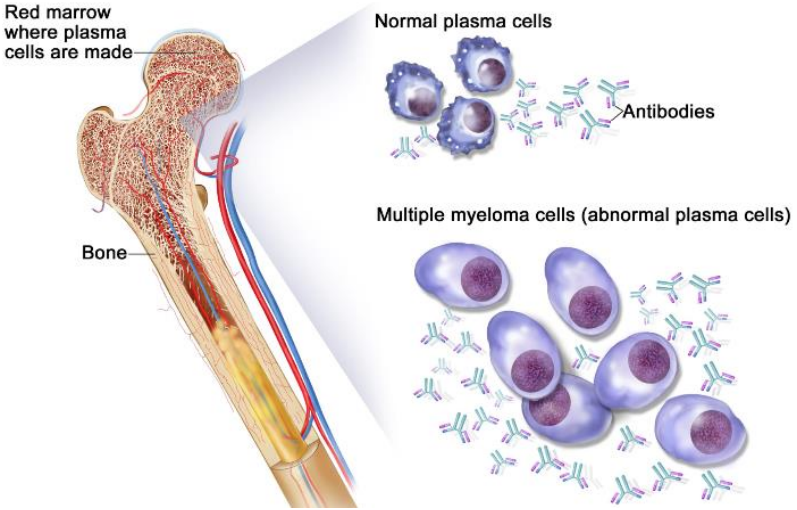
New indications and NCEs in development

- Clinical trials expected to start in 2019

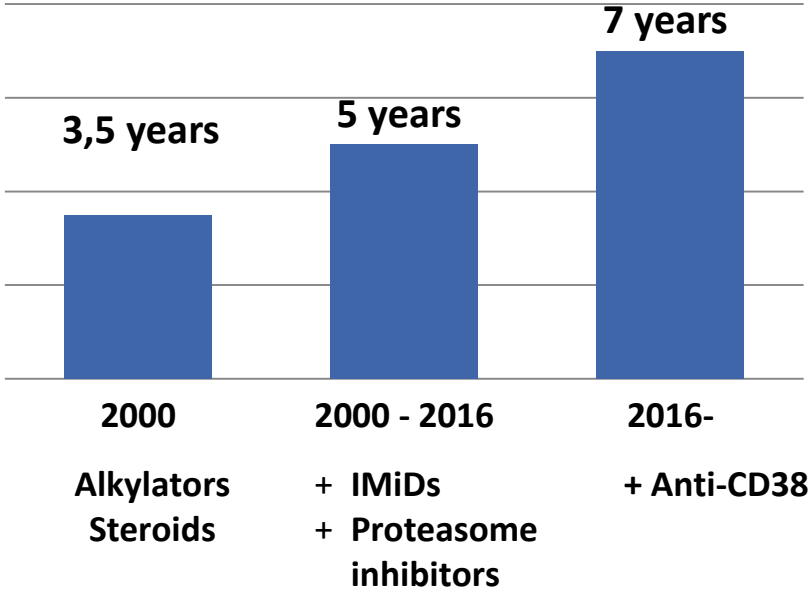


Multiple Myeloma is a hematological cancer without cure

Myeloma – Uncontrolled plasma cell proliferation



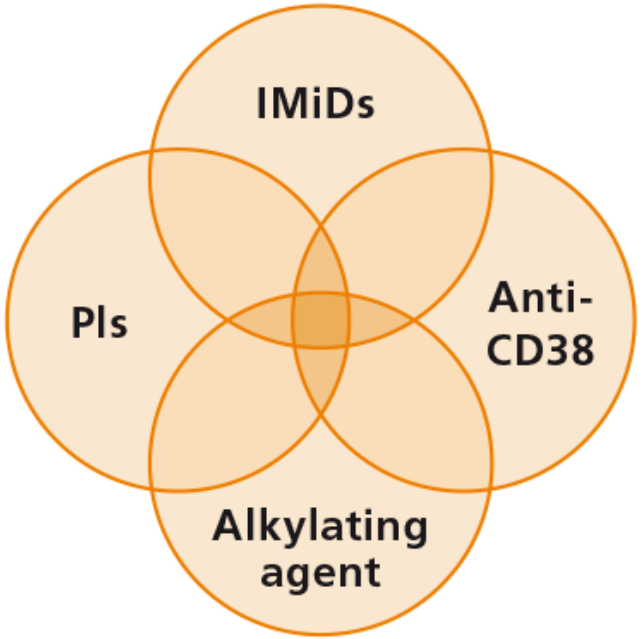
Median Survival increasing with more available treatment options



Source: IntrinsiQ and Kantar Health.

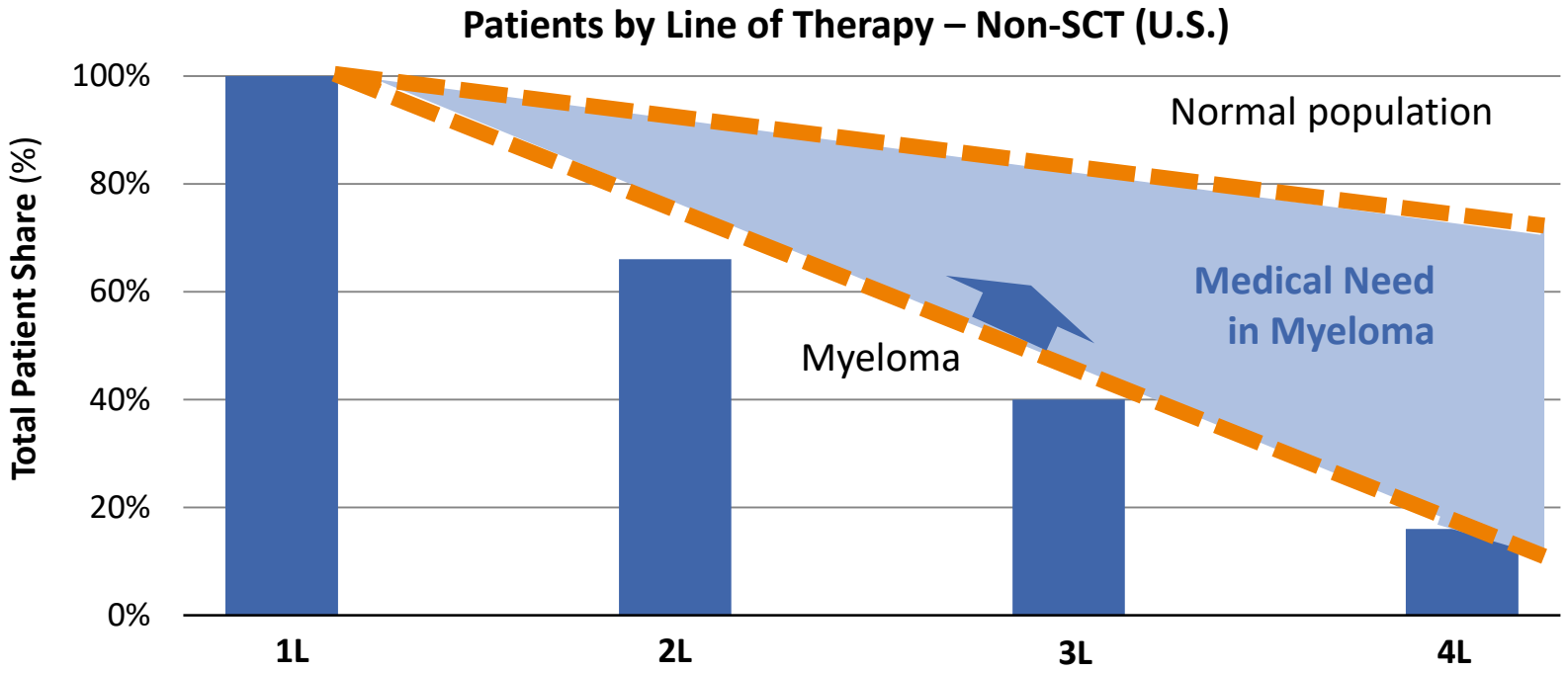
Significant medical needs remain

- 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



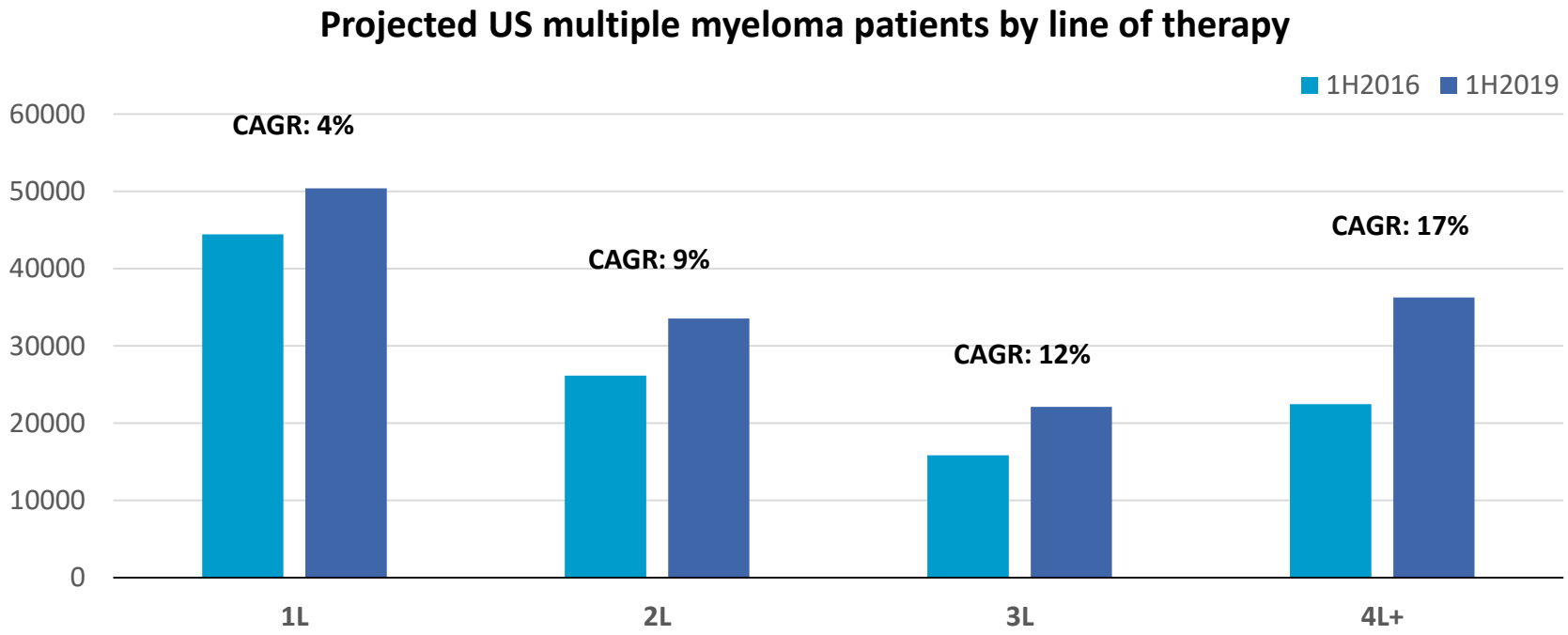
We are still far from making myeloma a chronic disease

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



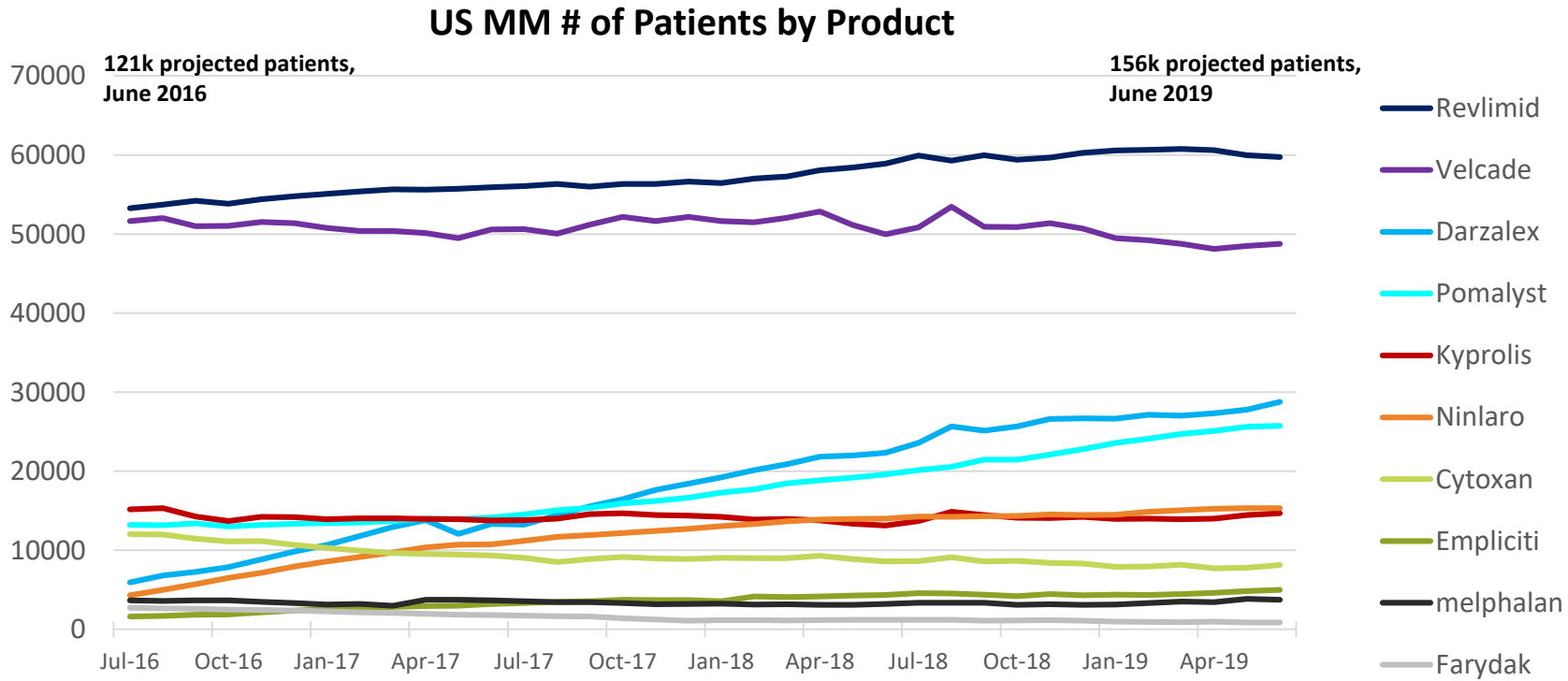
Source: Kantar Health 2018

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



Source: Intrinsiq MAT, June 2019
Note: 3-yr annual growth rate for 1H2016-2H2019

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



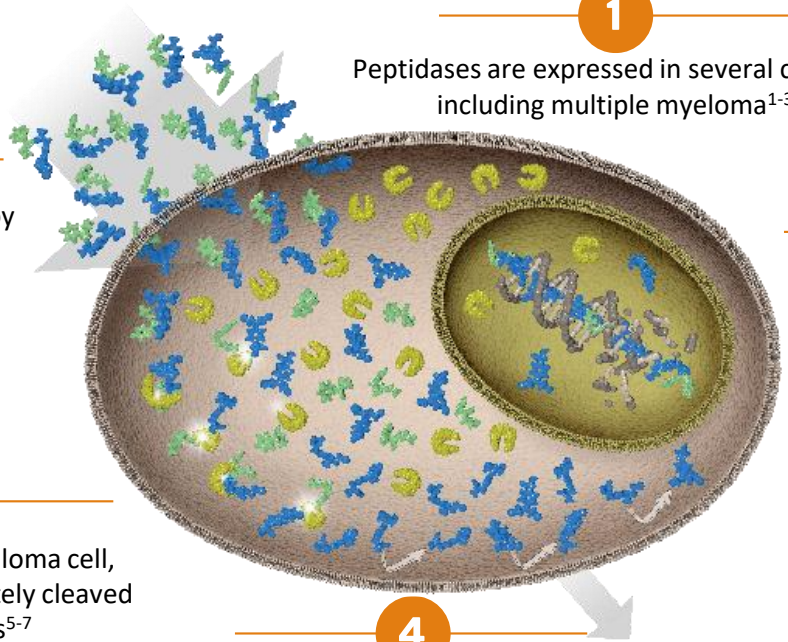
Source: Intrinsiq MAT, June 2019

Melflufen is a first in class peptide-conjugated alkylator

- Uses high peptidase levels to target myeloma cells

1. Peptidases are expressed in several cancers, including multiple myeloma[1-3]

2. Melflufen is rapidly taken up by myeloma cells due to its high lipophilicity[4,5]



3. Once inside the myeloma cell, melflufen is immediately cleaved by peptidases[5-7]

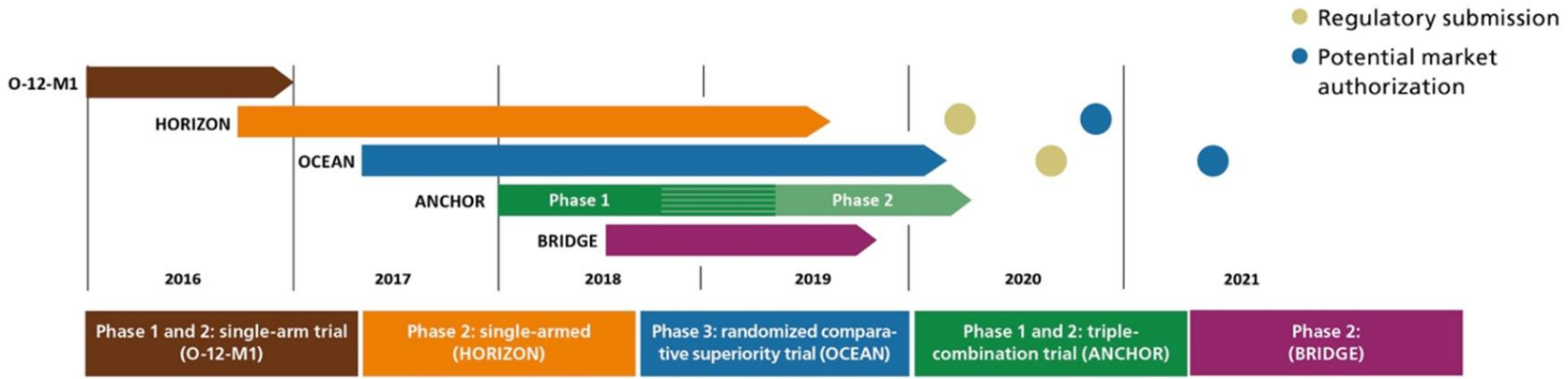
4. The hydrophilic alkylator payloads are entrapped[5-7]

5. Melflufen rapidly induces irreversible DNA damage, leading to apoptosis of myeloma cells[4,8]

- Melflufen
- pFPhe (carrier)
- Peptidase
- Alkylator payload

Sources: 1. Hitzerd SM, et al. *Amino Acids.* 2014;46:793-808. 2. Moore HE, et al. *Mol Cancer Ther*. 2009;8:762-770. 3. Wickström M, et al. *Cancer Sci.* 2011;102:501-508. 4. Chauhan D, et al. *Clin Cancer Res.* 2013;19:3019-3031. 5. Wickström M, et al. *Oncotarget*. 2017;8:66641-66655. 6. Wickström M, et al. *Biochem Pharmacol.* 2010;79:1281-1290. 7. Gullbo J, et al. *J Drug Target.* 2003;11:355-363. 8. Ray A, et al. *Br J Haematol.* 2016;174:397-409.

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)

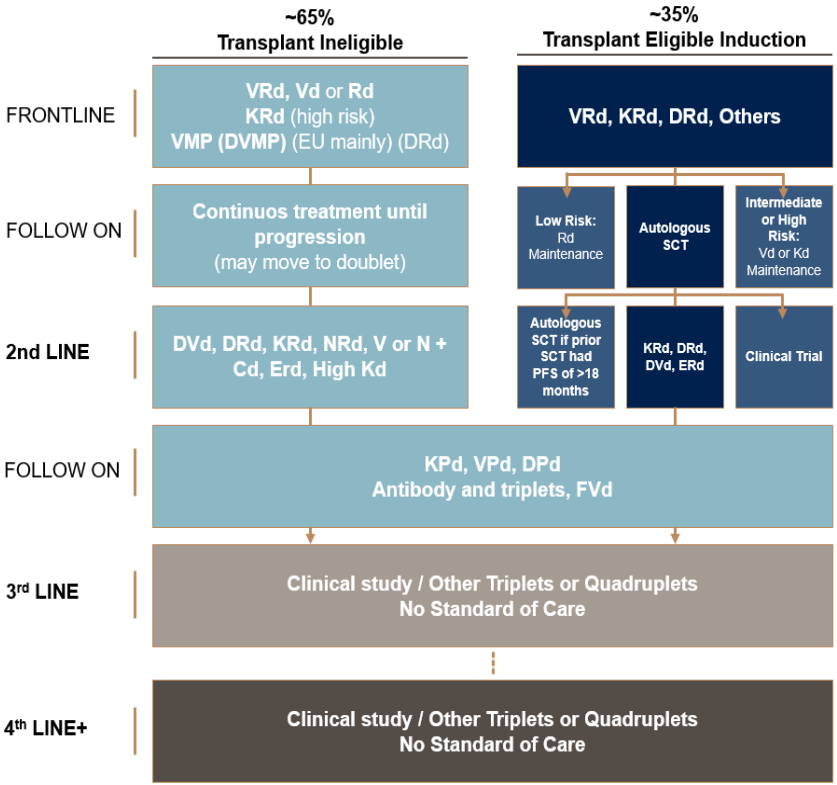
ANCHOR

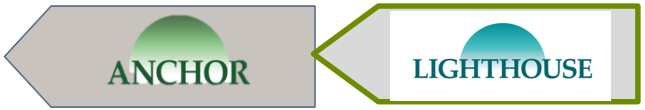
Show combination synergy and tolerability with daratumumab and bortezomib

BRIDGE

Show that melflufen can be used in patients with renal impairment

Clinical program covers entire relapsed setting





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)

Summary of key late stage development programs in RRMM – all new mechanisms have safety issues

Name	Company	MoA	Phase	Patient population	Efficacy*	Safety	Estimated approval
Selinexor	Karyopharm	SINE, XPO1	Approved Jul'19	Triple refractory	ORR: 26% PFS: 3.7mo	GI toxicity, cytopenia, dose modifications	N.A.
Daratumumab SC	J&J/ Genmab	aCD38 Mab	III	3+ prior lines (may expand to all Dara IV indications)	ORR: 41% SC vs. 37% IV	No new safety signals vs. IV	1H20
Isatuximab	Sanofi	aCD38 Mab	III	2+ prior lines	ORR: 24% PFS: 18.7mo	Infusion site reactions, cytopenia	1H20
Venetoclax	Abbvie/ Roche	BCL-2	III	1-3 prior lines	ORR: 21%	Deaths, cytopenia	Clinical hold lifted Jun'19 for t(11;14)
bb2121	Bluebird/ Celgene	BCMA CAR-T	II	3+ prior lines	ORR: 85% PFS: 11.8mo	Cytokine release syndrome, cytopenia	2H20
GSK916	GSK	BCMA ADC	II	3+ prior lines	ORR: 60% PFS: 12mo	Blurred vision, cytopenia	2H20

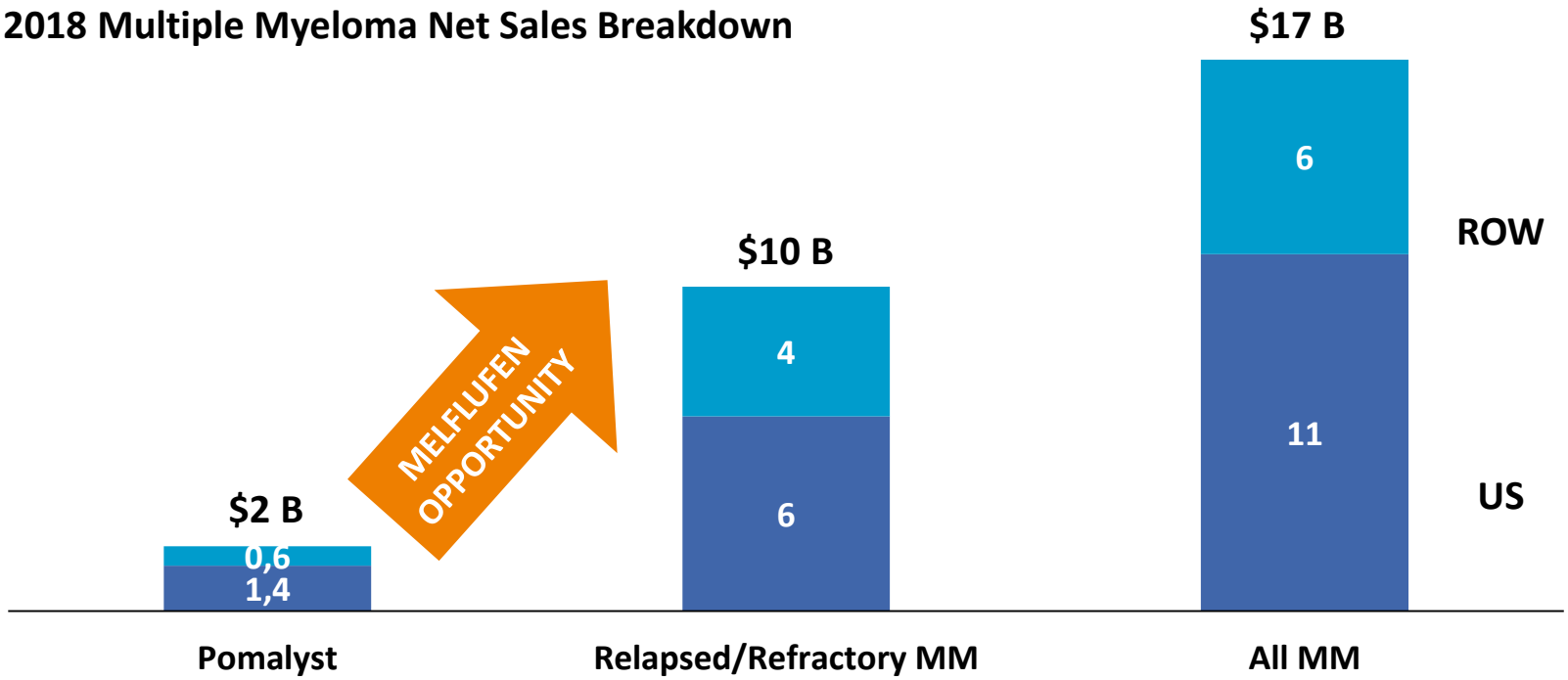
* Latest data cut for single agent + dexamethasone trials

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 27% 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

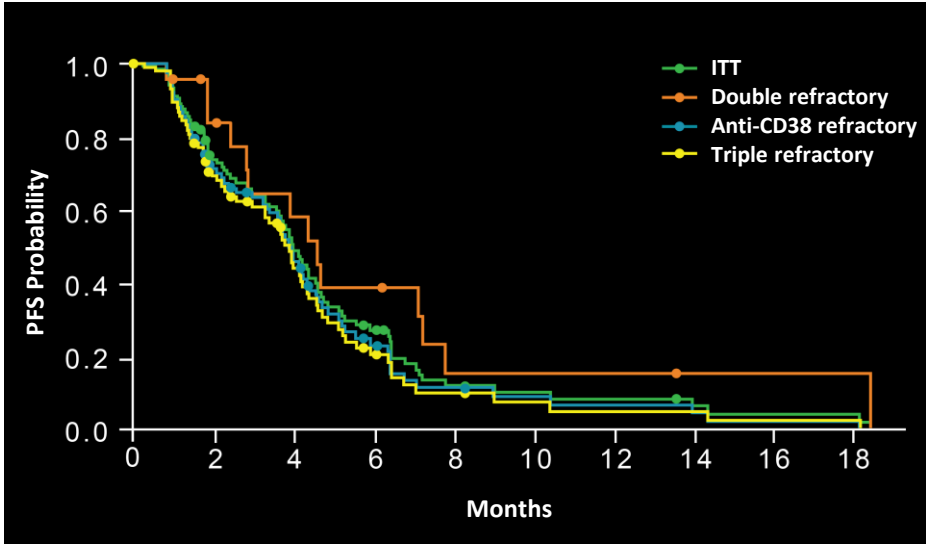


Source: EvaluatePharma, Intrinsiq, company analysis

Promising efficacy data for patients without remaining treatment options presented at EHA

Response	NE	PD	SD	MR	ORR	sCR	VGPR	PR
%	1%	13%	46%	12%	28%	1%	9%	19%

- n=121, 5-6 prior lines of therapy (median of 5)
  - 62% of patients had high-risk cytogenetics
  - 44% had extramedullary disease (EMD) at screening
  - 74% were triple-class refractory
- Strong overall response rate of 28%
- Median Progression Free Survival of 4.0 months
- Strong activity in triple-class (IMiD, PI and daratumumab) refractory patients
  - 20% ORR at latest cut



Source: EHA June 2019, IMW abstract August 2019

Strong activity in relapsed patients with extramedullary disease presented at IMW

HORIZON

Extramedullary disease occurs when myeloma cells form tumors outside the bone marrow

- Outcomes remain very poor for patients with EMD
- Incidence approximately 10-15% reported at relapse, increasing with reported rates up to 40%

Other studies have failed to demonstrate substantial response in relapsed EMD

- Only daratumumab and pomalidomide have shown any responses
- ORRs of 17% and 9%, respectively in less ill patients

EMD data from HORIZON presented at IMW, Sep 15

- 44 EMD patients, largest EMD cohort ever
- Late stage patients, median of 5 prior lines and 5.5 years since diagnosis

High response rate and highly relevant responses

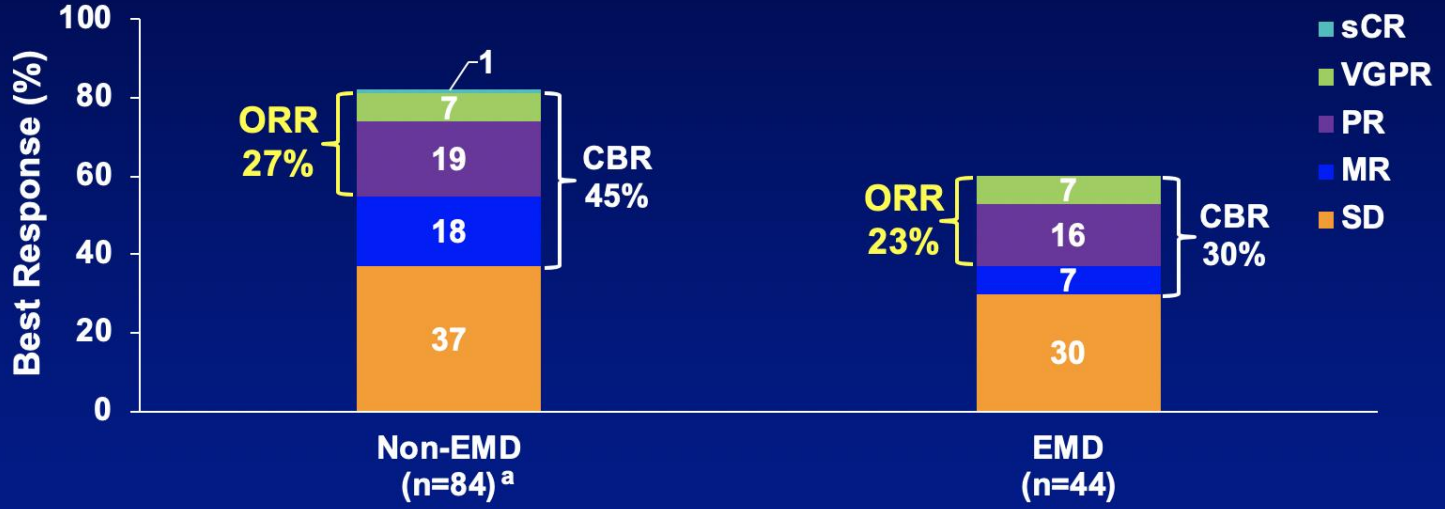
- 23% ORR for EMD patients, similar to non-EMD
- Survival benefit >12 months for EMD responders vs non-responders

HORIZON data presented at IMW Sep, 2019 (n=128)

	EMD-relapsed patients (n=44)	Non-EMD relapsed patients (n=84)
Overall response rates, %	23	27
Duration of response, months	3.4	4.4
Median overall survival responders, months	18.5	17.2
Median overall survival non-responders, months	5.1	8.5

Source: IMW presentation September 2019, Haematologica 2014.

Overall Response (n=128)



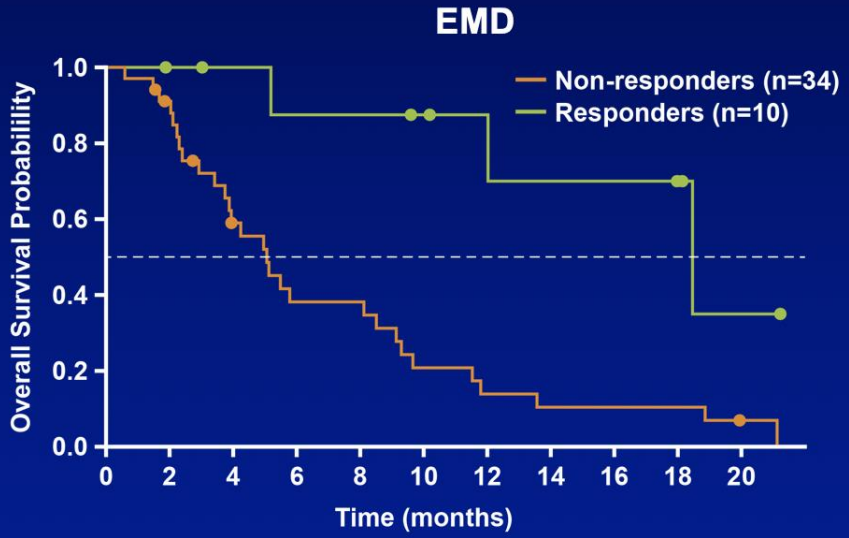
- Similar ORR in non-EMD and EMD pts, with an ORR of 27% and 23% respectively
  - Investigator-assessed response[1]
  - IRC review ongoing
- Median DOR for non-EMD pts 4.4 mos (95% CI, 3.5-11.2)
- Median DOR for EMD pts 3.4 mos (95% CI, 1.8-15.4)

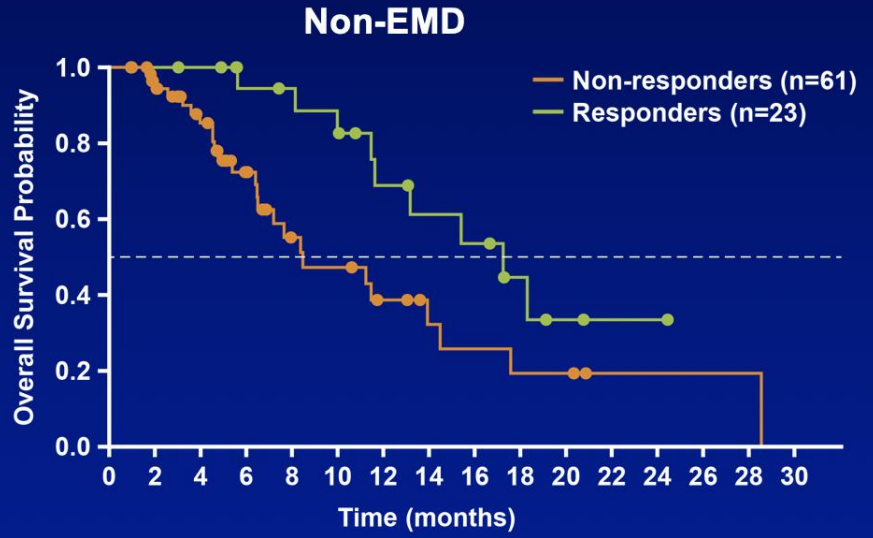
[a] Two non-EMD pts with pending response information available at data cut off 30th July 2019.

1. Rajkumar SV, et al. *Blood*. 2011;117:4691-4695.

OS in EMD and Non-EMD Pts Stratified by Response

HORIZON





- Median OS in EMD responders vs. non-responders: 18.5 vs. 5.1 mos
- Median OS in Non-EMD responders vs. non-responders: 17.2 vs. 8.5 mos
  - Similar trend for PFS in responders vs. non-responders: 4.8 vs. 2.2 mos in EMD pts; 6.4 vs. 3.8 mos in non-EMD pts
- 54% of ITT pts received subsequent therapy with no significant difference in outcome between EMD vs. non-EMD pts[1]

Data cutoff 30 July 2019.

1. Gandhi UH, et al. *Blood*. 2018;132(suppl 1):Abstract 3233.

Safety indicates a very good quality of life profile for patients

HORIZON

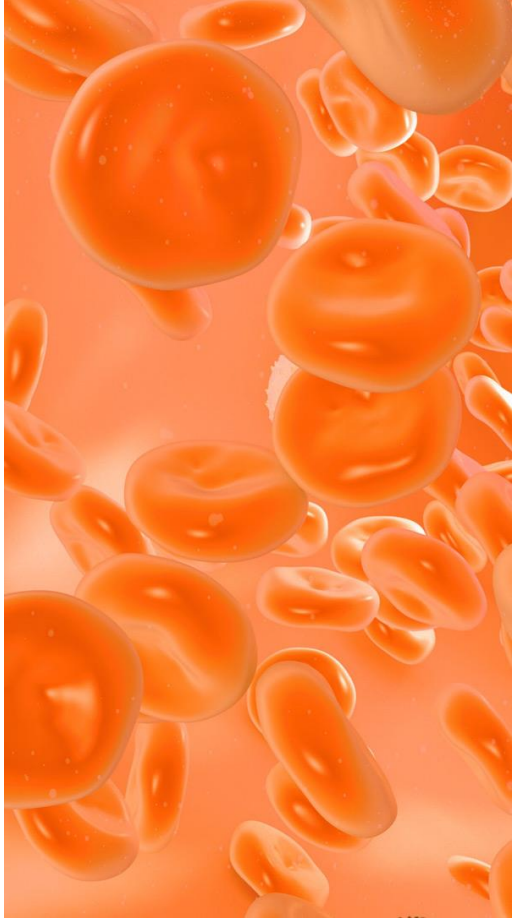
- Absence of grade 3 and 4 TEAEs outside of the hematological system and infections and infestations
- Low infection rate in comparison with other myeloma drugs
- Hematological toxicity clinically manageable
  - 78% of patients in HORIZON maintain the full 40 mg dose despite low bone marrow reserves

Grade 3 and 4 TEAEs occuring in >5% of patients	HORIZON
SAE rate	40%
Hematological	
Anemia	30%
Neutropenia	57%
Thrombocytopenia	58%
Febrile neutropenia	7%

Source: EHA June 2019

Application process initiated for accelerated approval in the US based on HORIZON

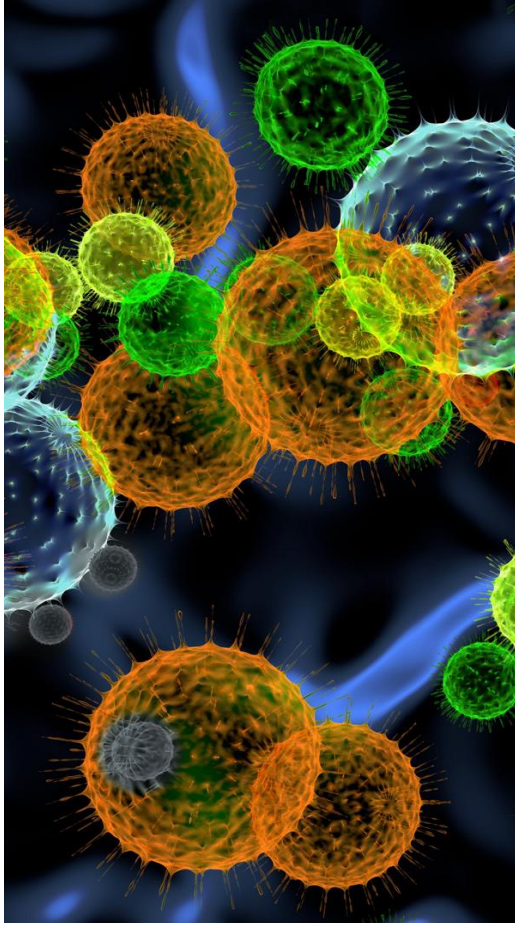
- Oncopeptides was engaged in dialogue with the FDA during the spring of 2019 about the HORIZON data
- FDA had access to all data from our ongoing and completed trials (apart from OCEAN)
- Based on the dialogue, Oncopeptides has initiated the submission process for accelerated approval in the US
  - Treatment of relapsed refractory multiple myeloma patients whose disease is triple-class refractory (i.e. refractory to one IMiD, one PI and one anti-CD38 Mab)
- Target filing date is Q1 2020 with possible US launch late 2020



Data indicates synergistic effect of Melflufen+Daratumumab combination

Summary of combination with daratumumab – n=24

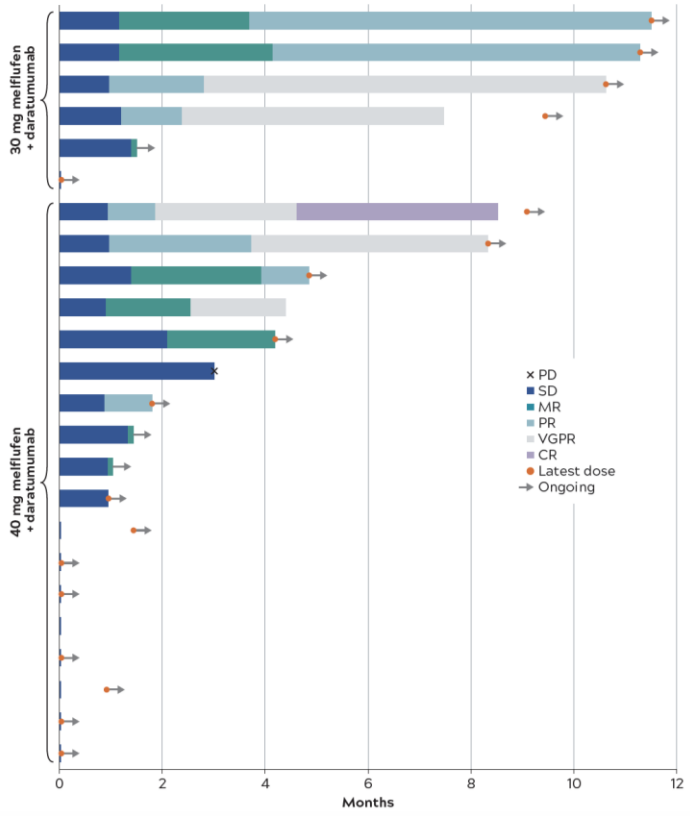
- 2-3 prior lines of therapy
- True RRMM population (not maintenance refractory) – 50% had disease progression while on last line of therapy and 37% high-risk cytogenetics
- **ORR of 82%** with good tolerability and deepening responses
- Median PFS not reached with longest patient on treatment for 12 months. All patients apart from one ongoing.



Encouraging data for Melflufen+Daratumumab combination presented at EHA

ANCHOR

Deepening responses – all but one patient ongoing



Patient characteristics

Characteristics	30 mg[a] (n=6)	40 mg (n=18)
Median age, years (range)	57.0 (49-78)	62.0 (35-77)
Gender, n (%) Male/female	3 (50)/3 (50)	13 (72)/5 (27)
Median time since diagnosis, years (range)	3.1 (1.9-8.0)	4.4 (0.7-8.2)
Median number of previous lines (range)	2.5 (1-3)	2 (1-4)
Prior ASCT/ alkylator exposed, n (%)	5 (83)/ 3 (50)	14 (78)/ 10 (56)
Alkylator refractory, n (%)	1 (17)	4 (22)
IMiD refractory, n (%)	3 (50)	11 (61)
PI refractory, n (%)	0	10 (56)
Last-line refractory, n (%)	2 (33)	10 (56)
IMiD + PI refractory, n (%)	0	8 (44)
ISS at study entry,[b] n (%) I/II/III	6 (100)/0/0	13 (76)/2 (12)/2 (12)
High-risk cytogenetic by FISH,[c] n (%)	2 (40)	5 (36)
Median albumin level, g/dL (range)	4.1 (3.1-4.5)	3.9 (3.1-4.9)

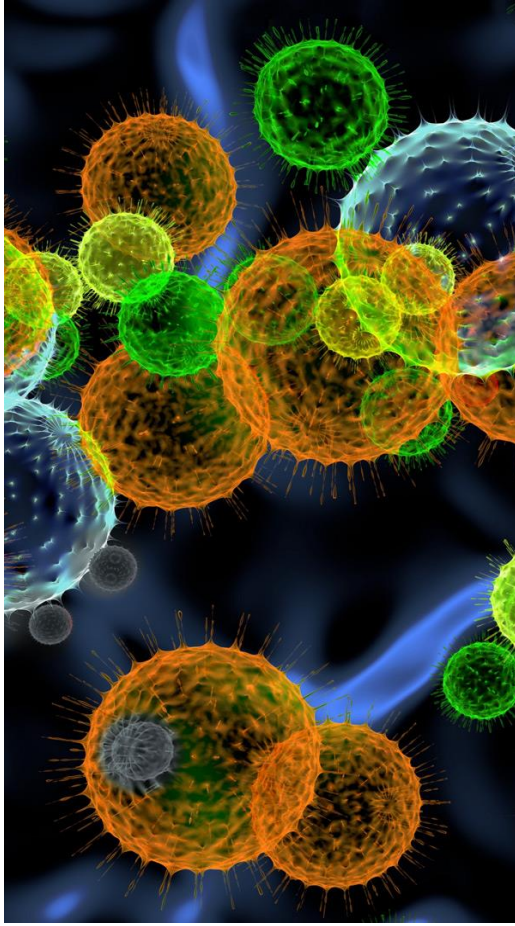
Treatment-related Grade 3/4 AEs

Preferred term	No. of Patients (%) 30 mg (n=6)	40 mg (n=18)
Any AE	5 (83)	14 (78)
Neutropenia[a]	5 (83)	10 (56)
Thrombocytopenia[a]	3 (50)	11 (61)
Anemia	2 (33)	1 (6)
Febrile neutropenia	1 (17)	0
Fatigue	0	1 (6)
Agitation	0	1 (6)
Muscular weakness	0	1 (6)

Data indicates synergistic effect of Melflufen+Bortezomib combination

Summary of combination with bortezomib – n=5

- Elderly population – 2-3 prior lines of therapy
- True RRMM population (not maintenance refractory) – 50% had disease progression while on last line of therapy
- 5/5 responded on therapy (**ORR 100%**) – all pts ongoing apart from one with good tolerability
- Median PFS not reached with the longest patient on treatment for 11 months

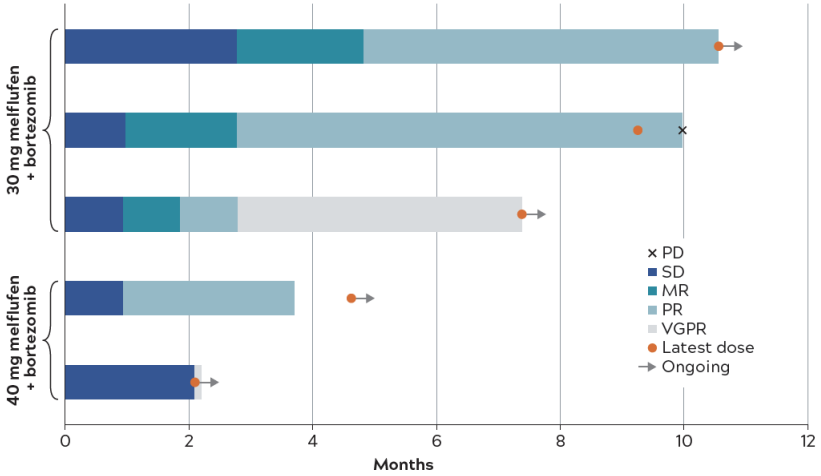


ANCHOR

Encouraging data for Melflufen+Bortezomib combination presented at EHA

ANCHOR

Deepening responses – all but one patient ongoing



Patient characteristics

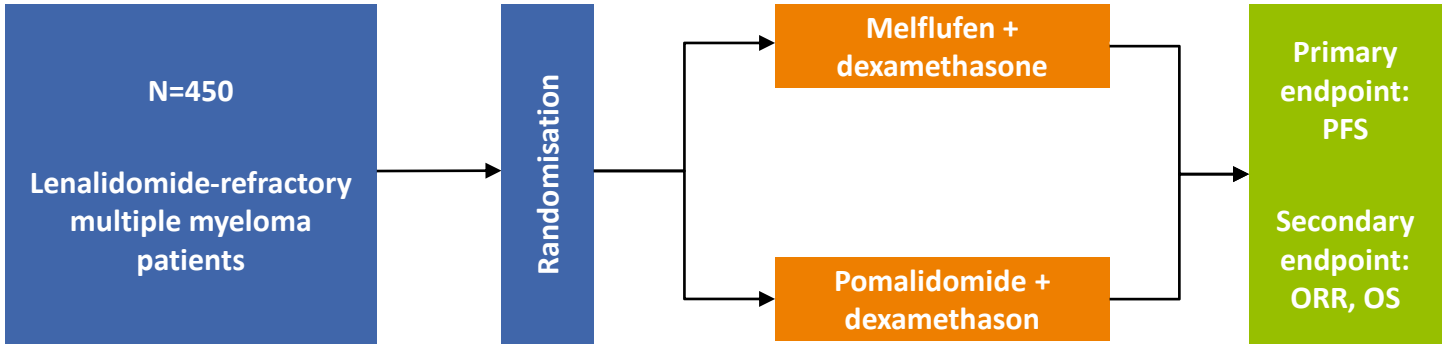
Characteristics	n=5[a]
Median age, years (range)	73.0 (63-82)
Gender, n (%) Male/female	3 (60)/2 (40)
Median time since diagnosis, years (range)	5.8 (1.2-7.4)
Median number of previous lines (range)	2 (2-4)
Prior ASCT/alkylator exposed, n (%)	1 (20)/4 (80)
Alkylator refractory, n (%)	1 (25)
PI exposed, n (%)	5 (100)

Treatment-related Grade 3/4 AEs

Preferred Term	No. of Patients (%)	
	30 mg (n=3)	40 mg (n=2)
Any AE	2 (67)	1 (50)
Thrombocytopenia[a]	2 (67)	1 (50)
Neutropenia[a]	2 (67)	0
Pneumonia[a]	1 (33)	0

Source: EHA June 2019.

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

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

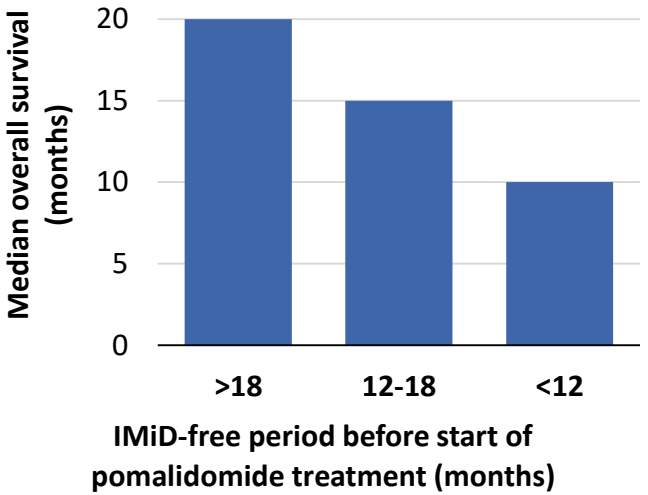
- Median maintenance duration 24 months instead of 10 months

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).

Our new pivotal combination trial LIGHTHOUSE of high strategic importance

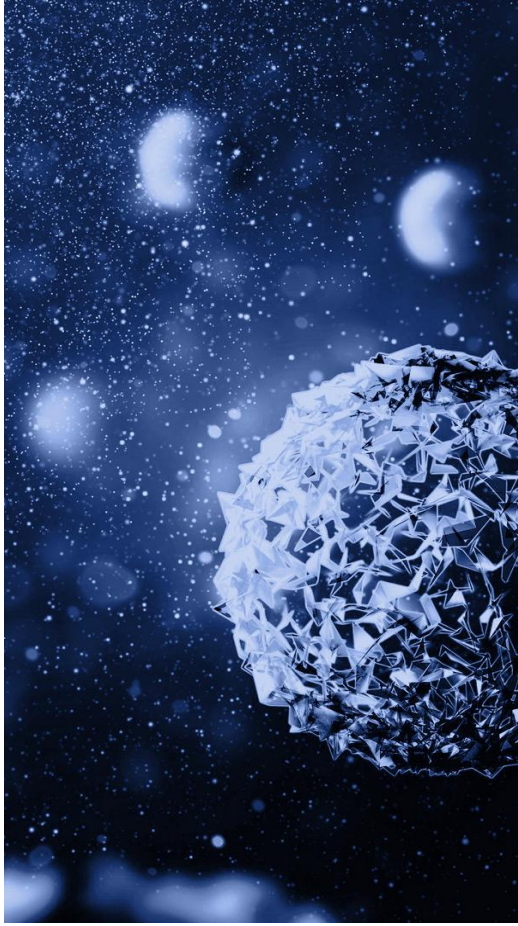
Second pivotal phase III trial with melflufen in multiple myeloma

- Melflufen+daratumumab+dexamethasone vs daratumumab+dexamethasone randomized 2:1

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 preparing the study and aiming for enrolling the first patient around year-end 2019



LIGHTHOUSE

Our new indication AL Amyloidosis

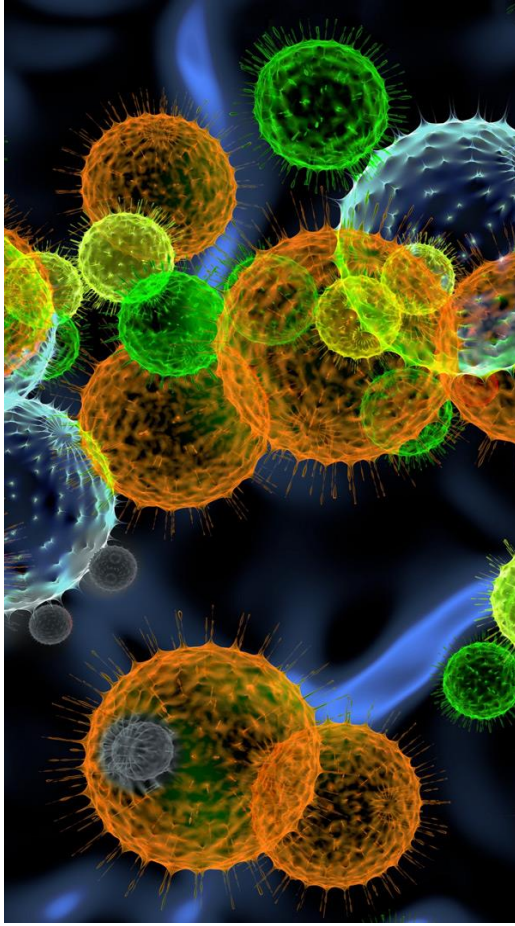
Similar to myeloma, AL amyloidosis is a disease of the B-cell system

- 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 also most of the time efficacious in AL amyloidosis

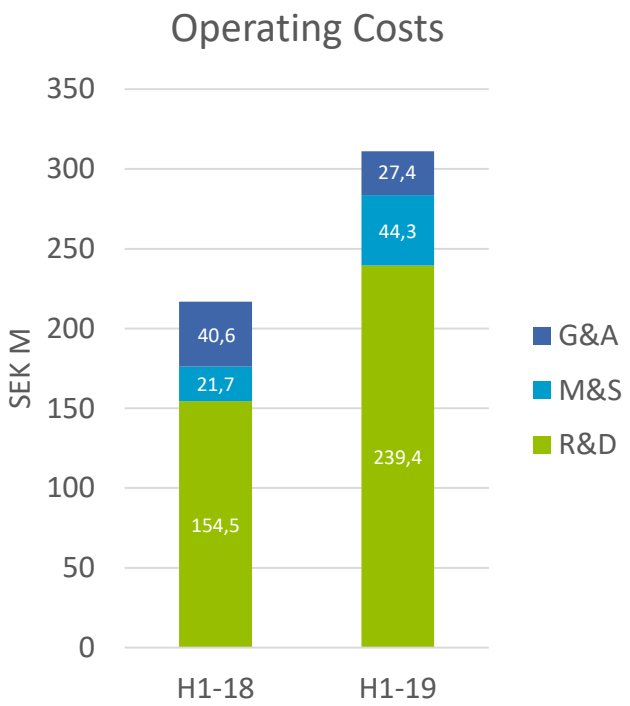
Limited treatment options with median overall survival of 1.5-2.0 years (1995-2013) with a trend towards improved survival (3.5 years for the period 2010-2013)[2]

Phase I+II study with first-patient-in H2 2019 – up to 30 patients across both phases



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

Financial results for the period Jan – Jun 2019



- Operating loss increased to SEK 305.6 M (loss:205.1)
  - R&D increase primarily due to increase in Clinical & drug supply: SEK 201.4 M (135.5)
    - OCEAN costs SEK 110.7 M (69.4)
    - HORIZON costs SEK 29.5 (12.6)
    - ANCHOR costs SEK 19.4 M (12.0)
  - Build-up of commercial and medical relations explains increase in M&S costs
- Operating costs include non-cash costs related to incentive programs
  - SEK 17.8 M (50.2) for H1
- Cash flow from operating activities neg. SEK 265.8 M (neg. 130.6)
- Cash position was SEK 626.8 M (568.2) as of June 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

The next 12 months represents the most information rich period in Oncopeptides' history

H2 2019
FPI Amyloidosis Trial
FPI LIGHTHOUSE
✓ LPI HORIZON
LPI BRIDGE
✓ Updated Data from HORIZON on EMD patients at IMW
Updated Data from HORIZON, ANCHOR and BRIDGE at ASH

H1 2020
NDA submission
LPI OCEAN
LPI ANCHOR
Top-line results OCEAN

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

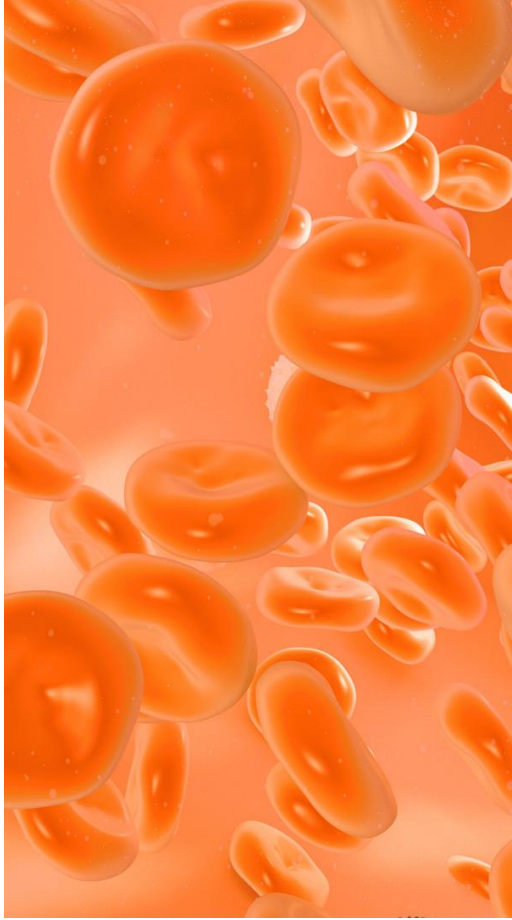
- Phase 2 study, O-12-M1, showed very strong survival data
- Generally well tolerated giving patients good quality of life

Late stage development program with multiple ways to get approval

- Submission for accelerated approval for triple-class refractory patients in the US targeted in Q1-20
- Pivotal phase 3 expected to be fully enrolled Q1 2020
- Additional Phase 3 to be started around year-end 2019

Strong financial position

- Cash position SEK ~1.3 B ($ 130 M) after share issue early July



Thank you for your attention!

oncopeptides