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oncopeptides

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Oncopeptides at a glance

Targeted cancer treatments – initial focus on multiple myeloma

- Proprietary peptide-conjugated compounds (PDC)
- Lead compound melflufen (melphalan flufenamide) targeting multiple myeloma (MM)
- Melflufen Phase 2 study, O-12-M1, showed highly competitive survival data

Melflufen geared for accelerated approval in the US

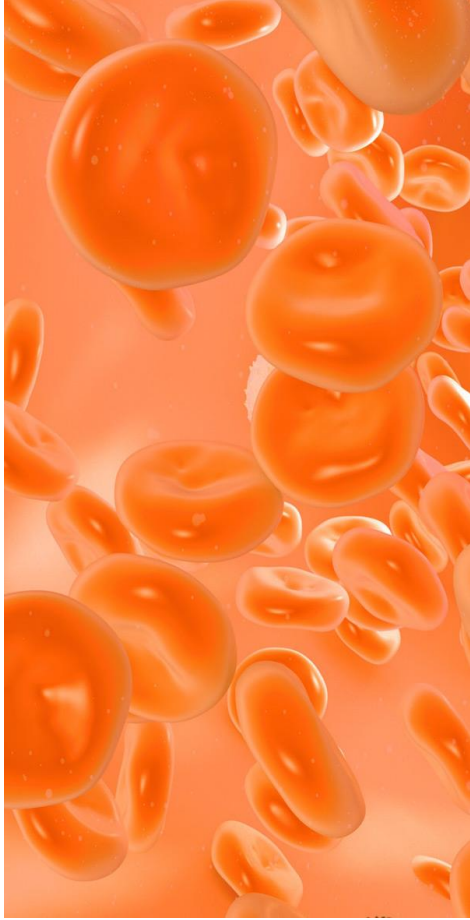
- NDA submission in Q2-2020 based on phase 2 HORIZON data in triple-class refractory MM
- sNDA submission in H2 2021 based on phase 3 OCEAN data in earlier lines
- Randomized phase 3 study LIGHTHOUSE, to be initiated H2 2020

PDC platform supports new indications

- Phase 1/2 study addressing AL amyloidosis started
- New NCE:s from the PDC platform to enter clinical studies 2021

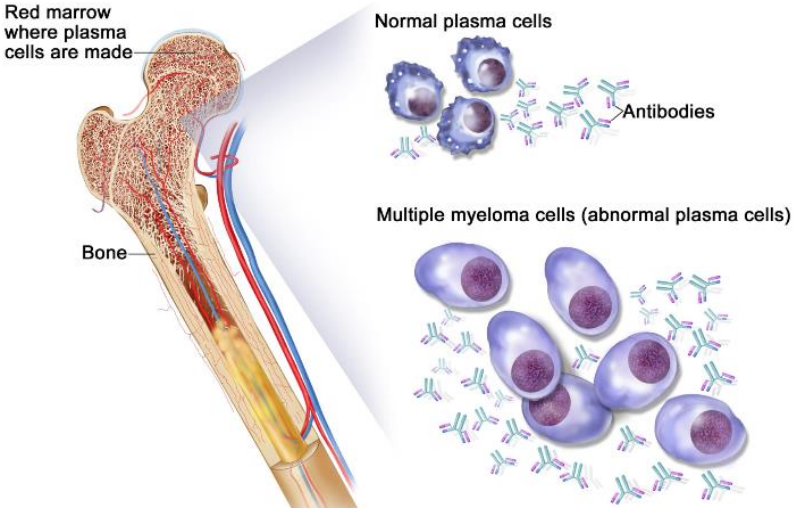
Strong financial position

- Market cap: SEK ~8 B, listed on NASDAQ Stockholm
- Cash position: SEK 618 M as of March 31 plus approx. SEK 1,400 M raised in Q2

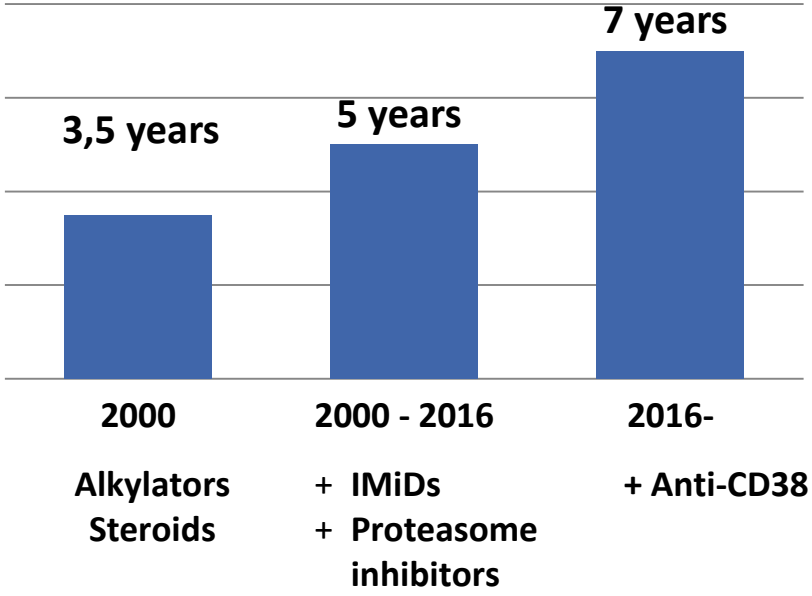


Multiple myeloma a hematological cancer with no cure

Myeloma – uncontrolled plasma cell proliferation

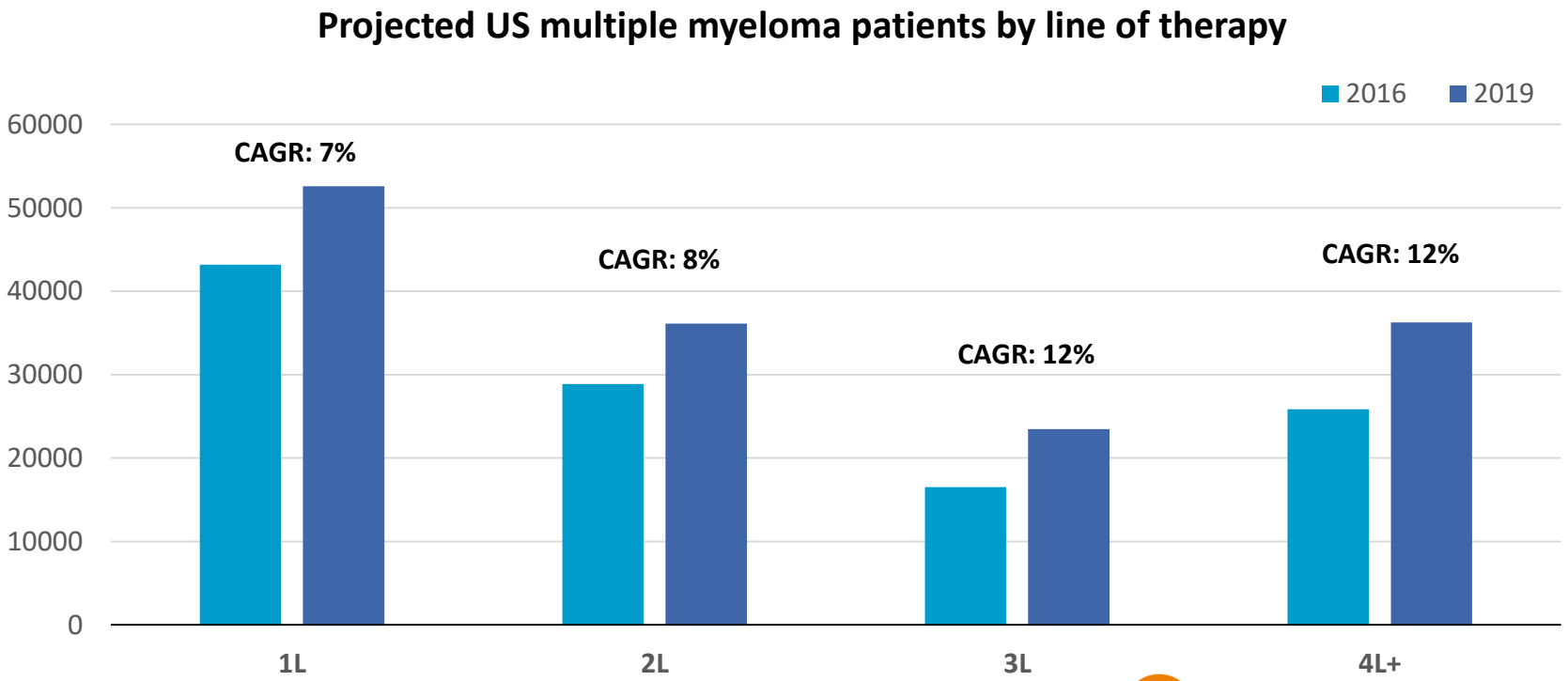


Median survival increasing with more available treatment options



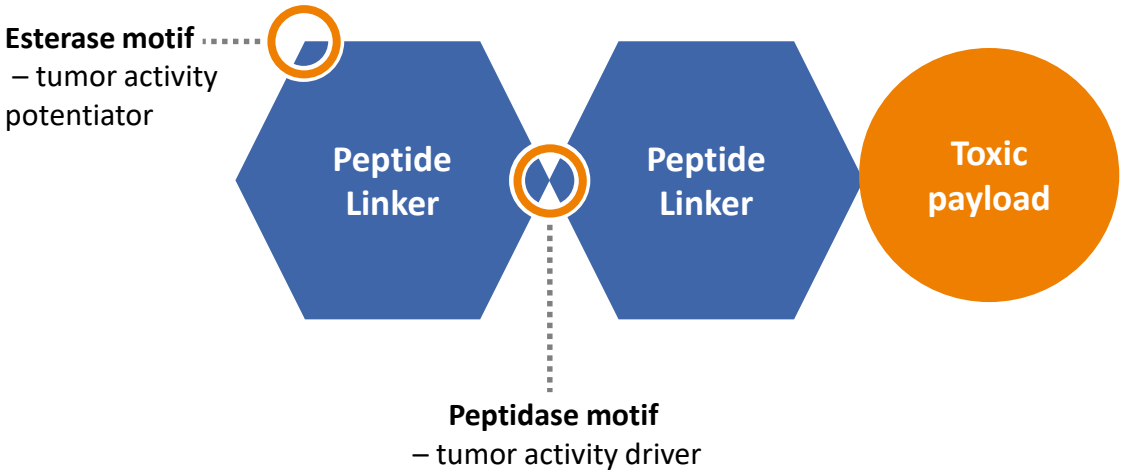
Source: IntrinsiQ and Kantar Health.

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



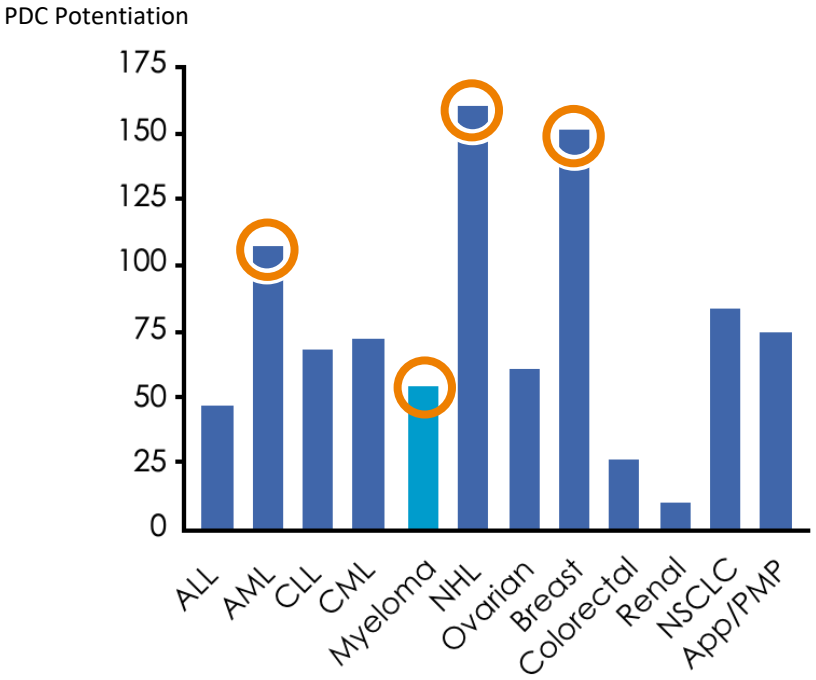
Source: Intrinsiq MAT 2019
Note: 3-yr annual growth rate for 4Q2016-4Q2019

Unique Peptide Drug Conjugate (PDC) platform



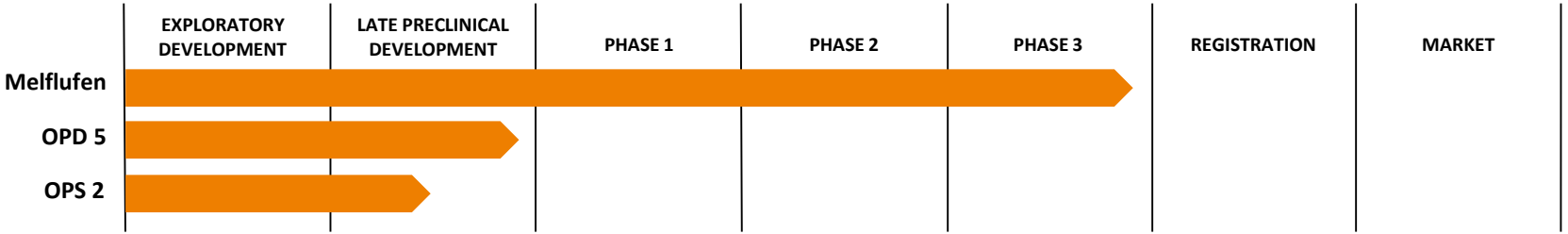
- Targeted delivery of toxins
- Utilizing enzymatic motifs

PDC platform has therapeutic activity in most cancers



- The PDC platform shows activity across a most cancers (data to the left; patients)
- Based on the PDC platform, Oncopeptides has developed novel molecules
- Lead compound melflufen is focused on multiple myeloma and AL amyloidosis
- Indication expansion in patients suffering from AML, NHL and breast cancer

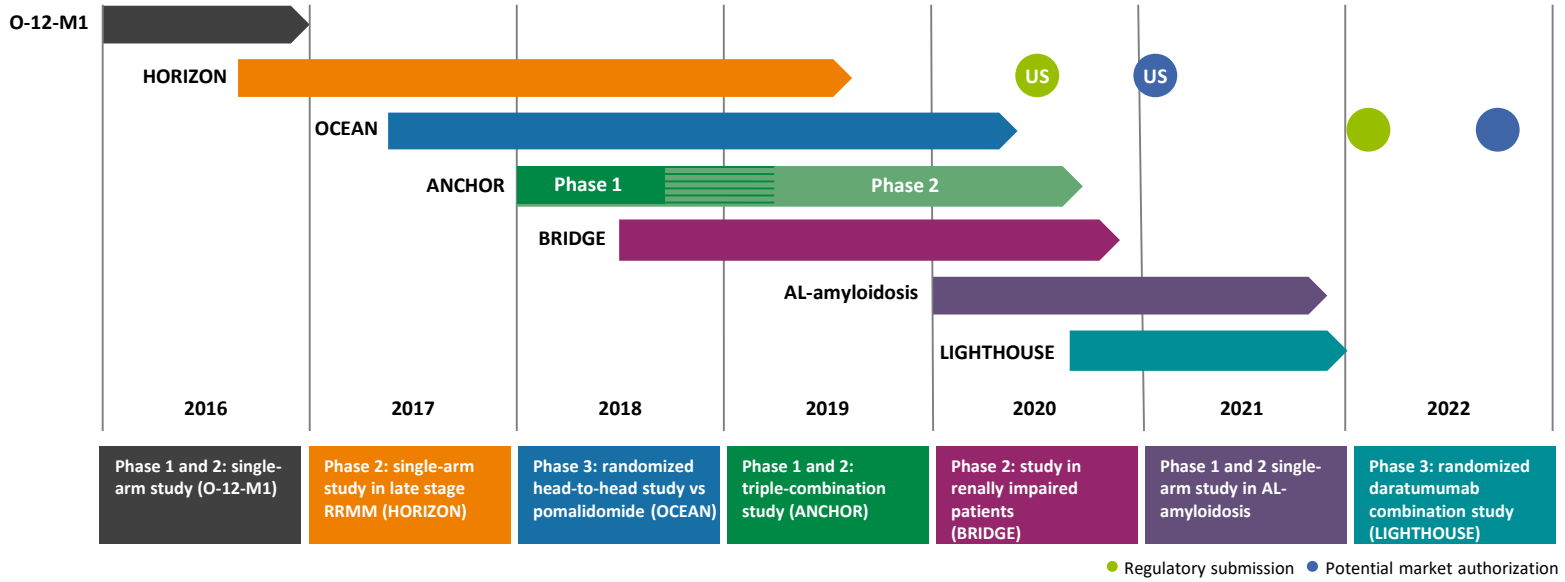
PDC candidates enters clinical development in 2020-21



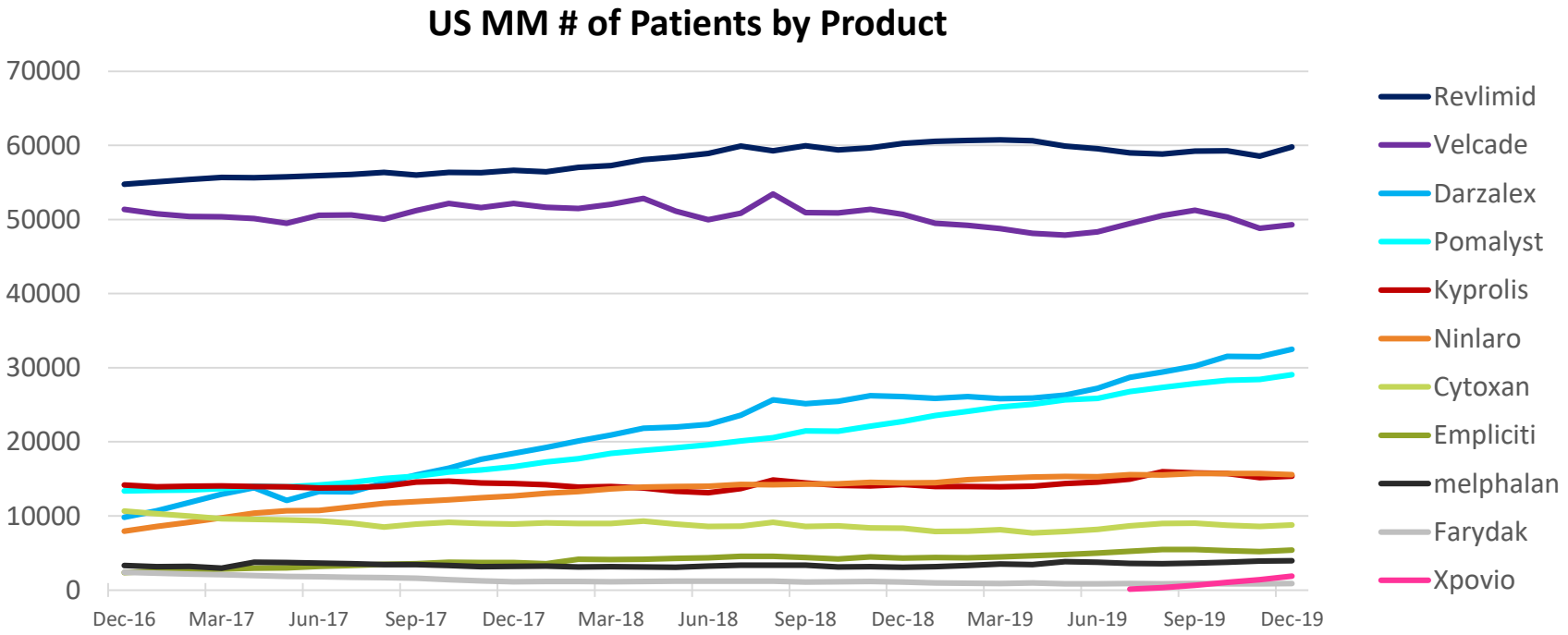
- OPD5 and OPS2 will be ready for the clinic in 2020 and 2021 respectively
  - OPD5 – specialized alkylating PDC candidate for high-dose treatment of patients (i.e. bone-marrow transplantation)
  - OPS2 – second generation PDC compound with an alkylating payload
- Both are novel molecules with composition of matter patents
- Options to fully explore PDC platform in 2021 and beyond

Melflufen clinical development program

Potential to provide a broad set of data in different patient populations

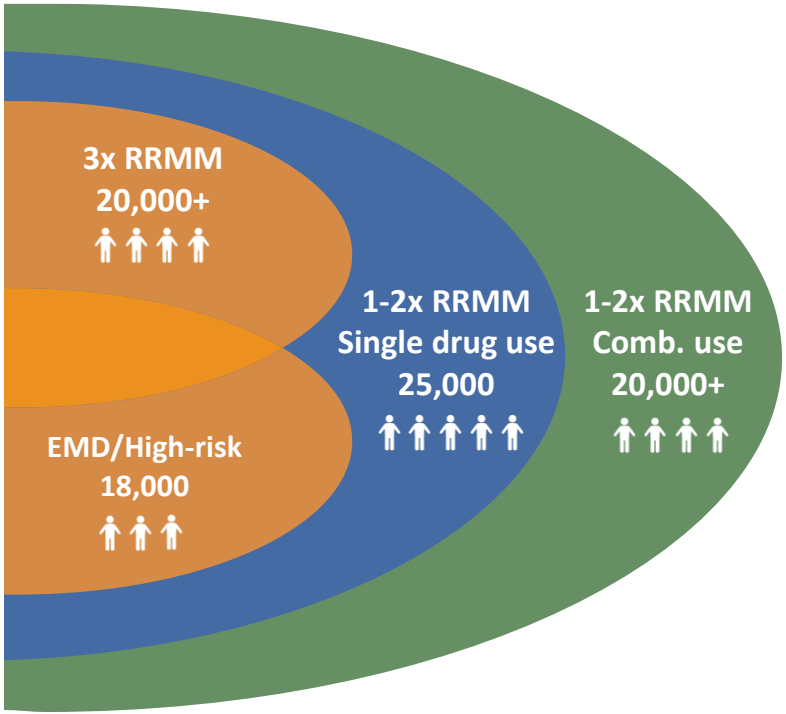


Newer products used in addition to older products as survival improves



Source: Intrinsiq MAT, Dec 2019

Significant market opportunities for melflufen



Source: US Patient numbers based on IntrinsiQ analysis.

Clinical Program supports expanding label

HORIZON

Anticipated label in triple-class refractory patients.

OCEAN

Head-to-head superiority study with the most used regimen in RRMM.

Majority of RRMM patients use single agent +/- steroid.

ANCHOR

LIGHTHOUSE

Combination with PI or anti-CD38 opens up 2L+ combination treatment.

Editorial in Lancet Haematology on melflufen

Is there a role for new drugs with alkylating properties in multiple myeloma?

Multiple myeloma, a complex disease originating in plasma cells, was primarily treated with melphalan until the last years of the 20th century. Advances in knowledge of the biology of the disease have led to the introduction of new drugs, and its transition of new drugs from the relapse setting to first-line treatment has been fast and as a result, most patients with multiple myeloma will receive proteasome inhibitors

intravenously every 4 weeks in combination with weekly dexamethasone can lead to clinical improvement (overall response rate was 31% [14 of 45 patients; 95% CI 18–47]; median progression-free survival was 5·7 months [95% CI 3·7–9·2]; and overall survival was 20·7 months [11·8 to not reached]). The most common toxicities were haematological toxicity and grade 3–4 thrombocytopenia and neutropenia

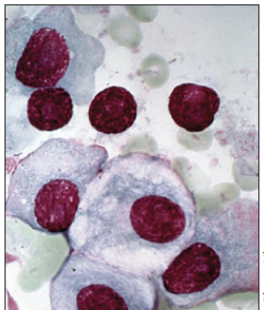


Photo Library

Source: Lancet Haematology March 23rd 2020.

Final HORIZON data in triple-class refractory RRMM

HORIZON

Independent Review Committee (IRC) data

Primary End-Point	Investigator Ass. Data Jan 14th	IRC Data Jan14th	Incl. unconfirmed responses Jan 14th
Overall Response Rate (ORR) – ITT n=157	29%	30%	31% (inv. and IRC)
ORR – 3x RRMM n=119	26%	26%	27% (inv. and IRC)
ORR – EMD n=55	24%	27%	NA

Note: Two unconfirmed responses on January 14th have later been confirmed.

Safety profile comparable to what was reported at ASH 2019, i.e. hematological toxicities were common but manageable – non-hematological toxicities were infrequent

Final data from the HORIZON study. Data in triple-class refractory patients.

Competitive melflufen data in triple-class RRMM

HORIZON

	Melflufen Interim data ASH except ORR	Xpovio Karyopharm US approval July 2019	Belantamab GSK In filing
Number of patients studied	93	122	97
Overall Response/Clinical Benefit Rate	26%*/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%

* ORR number is final ORR, all other melflufen data from Interim presentation at ASH, ORR was 24% at ASH

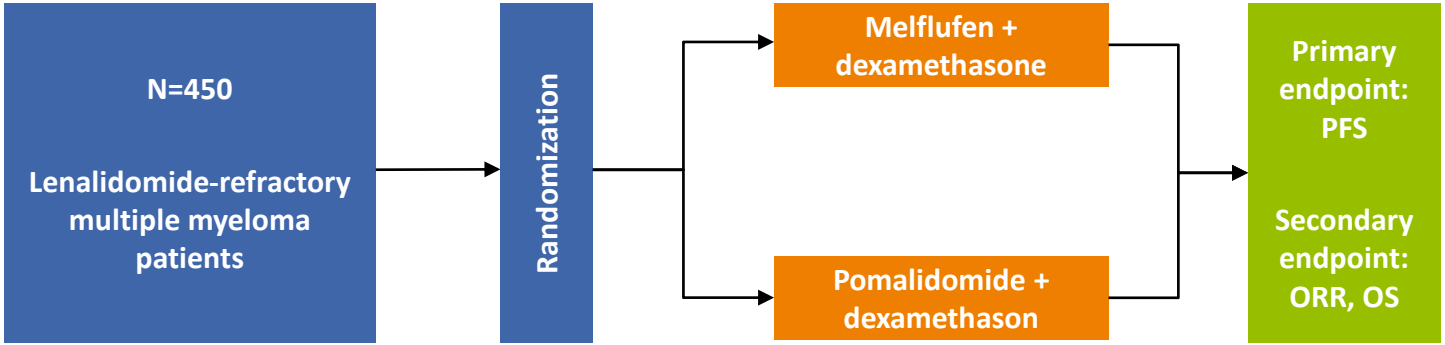
FDA submission and commercialization on track

HORIZON

- FDA submission for accelerated approval in triple-class refractory MM is on track for end of Q2 2020
- Early Access Program for RRMM patients in the US to be launched end of Q2
- US Commercialization build-up ongoing, 30 FTE by March 31, key positions in place
- Accelerated approval around the year end 2020

OCEAN compares melflufen with SoC in RRMM

450 patients recruited with ongoing enrollment – top-line results in H1 2021



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 significant in pomalidomide registration study

- Only 29% received lenalidomide as last treatment

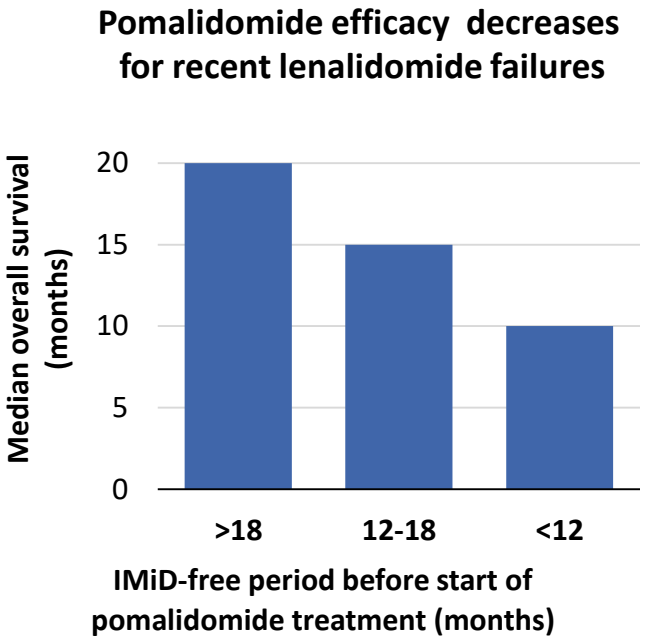
Lenalidomide used more aggressively today

- Median maintenance duration 24 months (not 10 months)

All lenalidomide patients in OCEAN failed in 18 months

- Vast majority has lenalidomide as last treatment

No assumptions in OCEAN to account for increased cross resistance



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).

Combination study LIGHTHOUSE

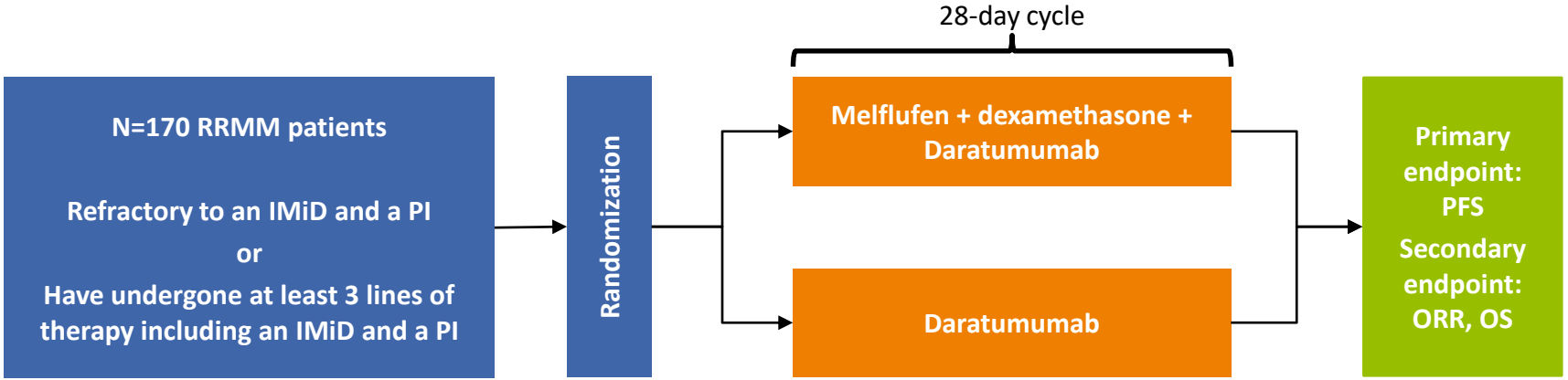
Our second confirmatory phase 3 study – initiation H2 2020

Second phase 3 study with melflufen in multiple myeloma

- Melflufen + daratumumab vs daratumumab randomized 2:1
- Subcutaneous version on Daratumumab

Two objectives:

- Expand market potential – extend label with melflufen in combination with daratumumab in earlier lines
- De-risk development program – add study that can drive market registration in the EU and US



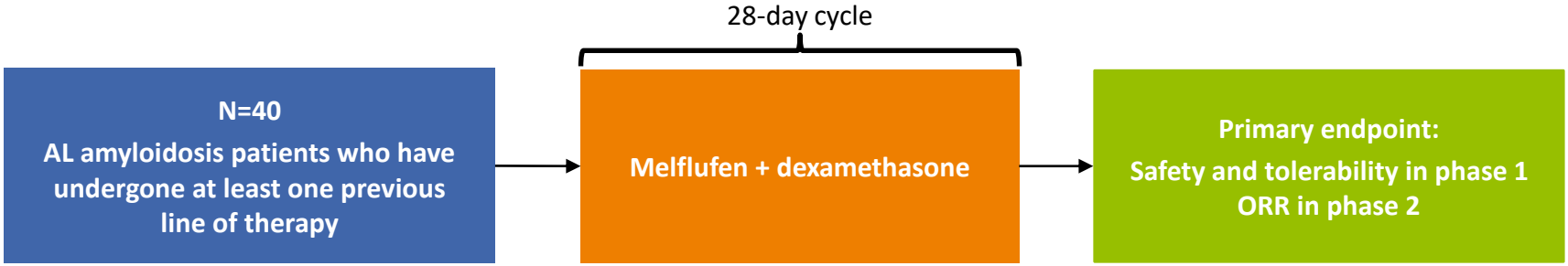
Phase 1/2 study in AL amyloidosis – recently initiated

Corresponding 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

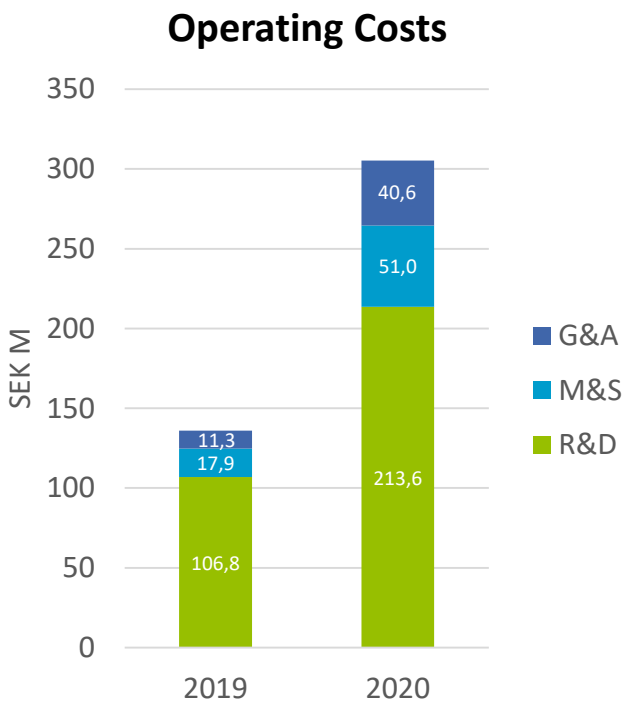
Similar drug used as in myeloma – drugs efficacious in myeloma are frequently used in AL amyloidosis

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

Financial results for the period Jan – Mar 2020



- Operating loss increased to SEK 296.9 M (loss:133.8)
  - R&D increase primarily due to increase in clinical & drug supply: SEK 158.3 M (73.1)
    - OCEAN SEK 77.7 M (37.6)
    - HORIZON SEK 25.8 M (11.0)
    - LIGHTHOUSE SEK 17.0 M (-)
    - ANCHOR SEK 7.4 M (13.2)
  - Build-up of commercial and medical relations explains increase in M&S
    - US subsidiary incl. admin SEK 44.3 M (8.5)
  - Limited effect of non-cash costs for incentive programs SEK 5.0 M (7.9)
- Cash flow from operating activities neg. SEK 312.8 M (neg. 142.8)
- Cash position was SEK 617.8 M (747.5) as of Mar 31, 2020
  - Directed share issue raising SEK 682.9 M in July 2019
  - Directed share issue raising SEK 1,413.9 M before issue costs after end of period in May 2020

News flow 2020 and early 2021

Q2 2020	Q3 2020	Q4 2020	H1 2021
✓ Last patient in OCEAN	First patient in Amyloidosis study	Potential accelerated approval in US	Top-line results OCEAN
NDA submission		Potential Launch in US	Last patient in ANCHOR
New data and updates at EHA		First patient in LIGHTHOUSE	Last patient in BRIDGE

Thank you for your attention!

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